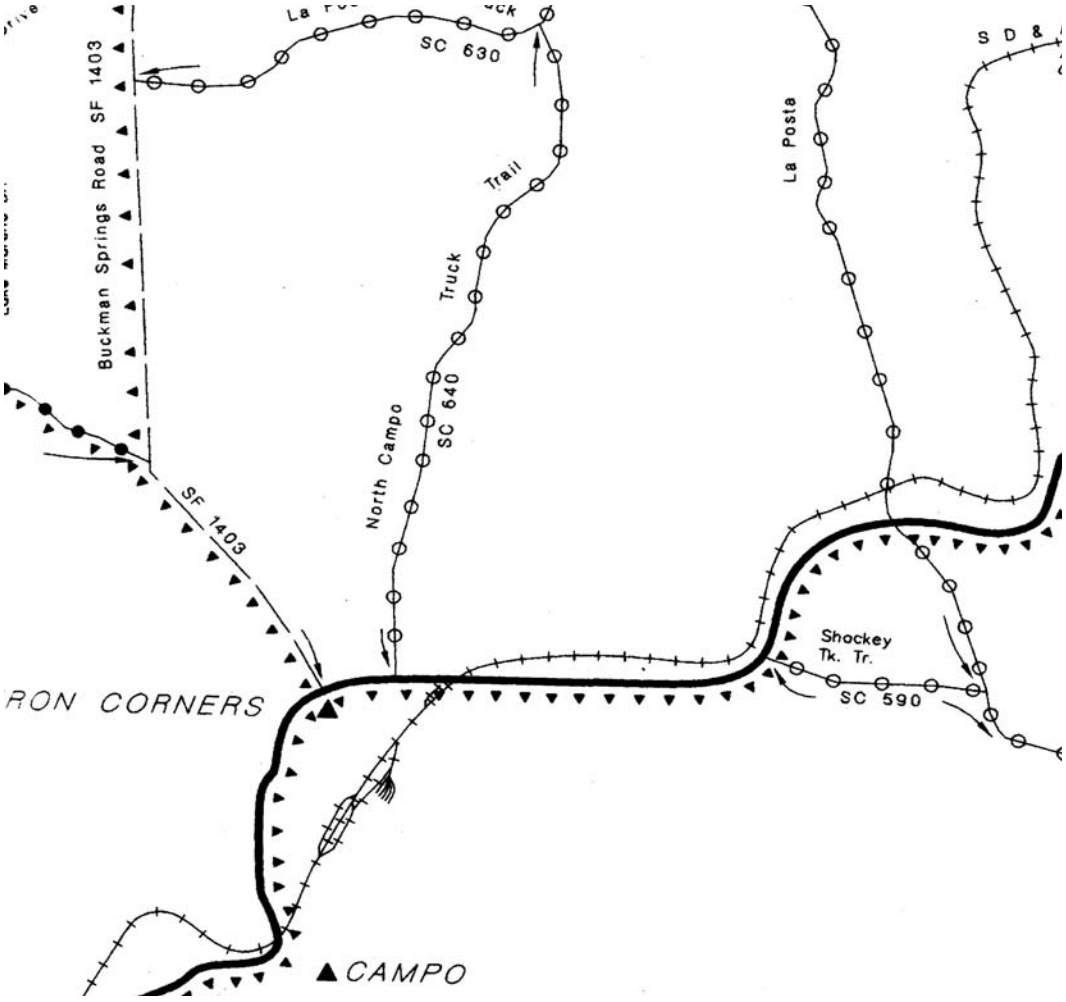
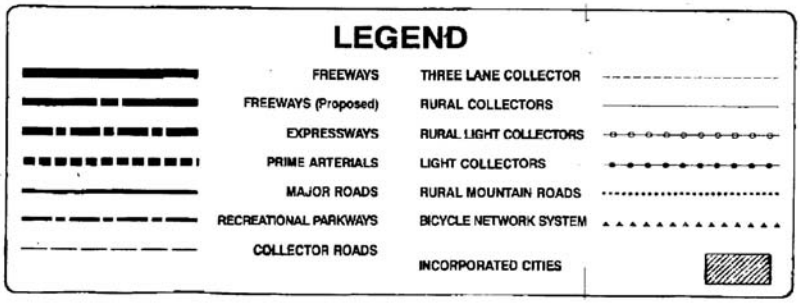
# APPENDIX A

# COUNTY OF SAN DIEGO CIRCULATION ELEMENT MAP AROUND STUDY AREA

## San Diego County Circulation Element



# APPENDIX B

# COUNT DATA

# LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #06 Start Date: 03/10/2005

Location: SR-94 & Forest Gate Road File Name: 347-02-1

| | SR-94 Southbound | | | | Forest Gate Road Westbound | | | | SR-94 Northbound | | | | Forest Gate Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Interval Total |
| 7:00 | 14 | 4 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 11 | 4 | 0 | 1 | 0 | 0 | 0 | 38 |
| 7:15 | 7 | 8 | 1 | 0 | 1 | 1 | 13 | 0 | 1 | 13 | 2 | 0 | 0 | 0 | 1 | 0 | 48 |
| 7:30 | 13 | 12 | 0 | 0 | 2 | 0 | 8 | 0 | 0 | 14 | 3 | 0 | 1 | 0 | 0 | 0 | 53 |
| 7:45 | 13 | 9 | 1 | 0 | 0 | 0 | 8 | 0 | 1 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 40 |
| Total | 47 | 33 | 2 | 0 | 4 | 1 | 32 | 0 | 2 | 41 | 14 | 0 | 2 | 0 | 1 | 0 | 179 |
| 8:00 | 4 | 6 | 2 | 0 | 0 | 1 | 4 | 0 | 0 | 12 | 5 | 0 | 1 | 1 | 1 | 0 | 37 |
| 8:15 | 9 | 7 | 0 | 0 | 3 | 0 | 15 | 0 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 0 | 45 |
| 8:30 | 4 | 7 | 0 | 0 | 5 | 1 | 7 | 0 | 2 | 5 | 2 | 0 | 1 | 1 | 0 | 0 | 35 |
| 8:45 | 7 | 8 | 0 | 0 | 2 | 1 | 8 | 0 | 0 | 6 | 2 | 0 | 1 | 0 | 1 | 0 | 36 |
| Total | 24 | 28 | 2 | 0 | 10 | 3 | 34 | 0 | 2 | 31 | 12 | 0 | 3 | 2 | 2 | 0 | 153 |
| Grand Total | 71 | 61 | 4 | 0 | 14 | 4 | 66 | 0 | 4 | 72 | 26 | 0 | 5 | 2 | 3 | 0 | 332 |
| Approach% | 52.2 | 44.9 | 2.9 | - | 16.7 | 4.8 | 78.6 | - | 3.9 | 70.6 | 25.5 | - | 50.0 | 20.0 | 30.0 | - | |
| Total% | 21.4 | 18.4 | 1.2 | - | 4.2 | 1.2 | 19.9 | - | 1.2 | 21.7 | 7.8 | - | 1.5 | 0.6 | 0.9 | - | |

**Peak hour analysis for the period 07:00 to 07:45**

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 47 | 33 | 2 | - | 4 | 1 | 32 | - | 2 | 41 | 14 | - | 2 | - | 1 | - | 179 |
| Approach% | 57.3 | 40.2 | 2.4 | - | 10.8 | 2.7 | 86.5 | - | 3.5 | 71.9 | 24.6 | - | 66.7 | - | 33.3 | - | |
| Total% | 26.3 | 18.4 | 1.1 | - | 2.2 | 0.6 | 17.9 | - | 1.1 | 22.9 | 7.8 | - | 1.1 | - | 0.6 | - | |
| PHF | | | | 0.82 | | | | 0.62 | | | | 0.84 | | | | 0.75 | |

# LOS Engineering, Inc.

6342 Ferris Square, San Diego, CA 92121

Counted By: Emp. #06
Location: SR-94 & Forest Gate Road

Start Date: 03/10/2005
File Name: 347-02-2

| | SR-94 Southbound | | | | Forest Gate Road Westbound | | | | SR-94 Northbound | | | | Forest Gate Road Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Left | Thru | Right | Ped | Interval Total |
| 16:00 | 11 | 13 | 0 | 0 | 7 | 1 | 10 | 0 | 2 | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 56 |
| 16:15 | 12 | 8 | 2 | 4 | 4 | 3 | 9 | 0 | 1 | 6 | 0 | 0 | 3 | 2 | 0 | 0 | 54 |
| 16:30 | 11 | 11 | 3 | 0 | 2 | 0 | 15 | 0 | 1 | 3 | 0 | 0 | 4 | 2 | 0 | 0 | 52 |
| 16:45 | 5 | 6 | 2 | 0 | 3 | 6 | 7 | 0 | 0 | 8 | 1 | 2 | 2 | 1 | 0 | 2 | 45 |
| Total | 39 | 38 | 7 | 4 | 16 | 10 | 41 | 0 | 4 | 27 | 1 | 2 | 9 | 7 | 0 | 2 | 207 |
| 17:00 | 7 | 12 | 1 | 0 | 4 | 2 | 12 | 0 | 1 | 12 | 0 | 0 | 2 | 3 | 1 | 0 | 57 |
| 17:15 | 10 | 7 | 1 | 0 | 4 | 1 | 5 | 0 | 1 | 11 | 2 | 0 | 1 | 1 | 0 | 0 | 44 |
| 17:30 | 9 | 13 | 1 | 0 | 1 | 3 | 5 | 0 | 1 | 4 | 3 | 0 | 0 | 1 | 0 | 0 | 41 |
| 17:45 | 10 | 11 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 9 | 0 | 0 | 2 | 2 | 0 | 0 | 39 |
| Total | 36 | 43 | 4 | 0 | 9 | 6 | 26 | 0 | 3 | 36 | 5 | 0 | 5 | 7 | 1 | 0 | 181 |
| Grand Total | 75 | 81 | 11 | 4 | 25 | 16 | 67 | 0 | 7 | 63 | 6 | 2 | 14 | 14 | 1 | 2 | 388 |
| Approach% | 43.9 | 47.4 | 6.4 | 2.3 | 23.1 | 14.8 | 62.0 | - | 9.0 | 80.8 | 7.7 | 2.6 | 45.2 | 45.2 | 3.2 | 6.5 | |
| Total% | 19.3 | 20.9 | 2.8 | 1.0 | 6.4 | 4.1 | 17.3 | - | 1.8 | 16.2 | 1.5 | 0.5 | 3.6 | 3.6 | 0.3 | 0.5 | |

**Peak hour analysis for the period 16:15 to 17:00**

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volume | 35 | 37 | 8 | 4 | 13 | 11 | 43 | - | 3 | 29 | 1 | 2 | 11 | 8 | 1 | 2 | 208 |
| Approach% | 41.7 | 44.0 | 9.5 | 4.8 | 19.4 | 16.4 | 64.2 | - | 8.6 | 82.9 | 2.9 | 5.7 | 50.0 | 36.4 | 4.5 | 9.1 | |
| Total% | 16.8 | 17.8 | 3.8 | 1.9 | 6.3 | 5.3 | 20.7 | - | 1.4 | 13.9 | 0.5 | 1.0 | 5.3 | 3.8 | 0.5 | 1.0 | |
| PHF | | | | 0.81 | | | | 0.93 | | | | 0.67 | | | | 0.92 | |

# Vehicle Counts

**VehicleCount-347.2.1-NB**

**Datasets:**

| | |
|---|---|
| **Site:** | **[2.1] Buckman Springs Rd, btwn I-8 and SR-94** |
| **Direction:** | 5 - South bound A>B, North bound B>A., **Lane:** 0 |
| **Survey Duration:** | 18:07 Wednesday, March 09, 2005 => 1:50 Saturday, March 12, 2005 |
| **File:** | UM2.1312.EC0 (Plus) |
| **Identifier:** | N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03 |
| **Algorithm:** | **Modified** - Factory default |
| **Data type:** | Axle sensors - Paired (Class, Speed, Count) |

**Profile:**

| | |
|---|---|
| **Filter time:** | **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005** |
| **Included classes:** | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 |
| **Speed range:** | 5 - 100 mph. |
| **Direction:** | North (bound) |
| **Separation:** | All - (Headway) |
| **Name:** | Factory default profile |
| **Scheme:** | Vehicle classification (Scheme F99) |
| **Units:** | Non metric (ft, mi, ft/s, mph, lb, ton) |
| **In profile:** | Vehicles = 1305 / 3625 (36.00%) |

*** Thursday, March 10, 2005 - Total=1305, 15 minute drops**

| 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **3** | **2** | **4** | **10** | **14** | **50** | **82** | **95** | **103** | **67** | **56** | **62** | **87** | **72** | **92** | **144** | **101** | **85** | **72** | **36** | **27** | **23** | **13** | **5** | |
| 0 | 0 | 0 | 2 | 2 | 11 | 12 | **35** | 18 | 24 | 15 | 12 | 21 | 13 | 18 | 48 | 21 | 27 | 28 | 7 | 8 | 16 | 3 | 1 | - |
| 0 | 0 | 2 | 5 | 2 | 12 | 17 | **24** | 26 | 18 | 13 | 26 | 24 | 12 | 17 | 35 | 29 | 32 | 20 | 15 | 7 | 2 | 5 | 3 | - |
| 2 | 1 | 0 | 1 | 4 | 13 | **26** | 21 | 29 | 13 | 14 | 16 | 24 | 24 | 22 | 34 | 23 | 11 | 13 | 9 | 6 | 1 | 2 | 0 | - |
| 1 | 1 | 2 | 2 | 6 | 14 | **27** | 15 | 30 | 12 | 14 | 8 | 18 | 23 | 35 | 27 | 28 | 15 | 11 | 5 | 6 | 4 | 3 | 1 | - |

**AM Peak 0630 - 0730 (112), AM PHF=0.80**

# Vehicle Counts

**VehicleCount-347.2.1-SB**

**Datasets:**

| | |
|---|---|
| **Site:** | **[2.1] Buckman Springs Rd, btwn I-8 and SR-94** |
| **Direction:** | 5 - South bound A>B, North bound B>A., **Lane:** 0 |
| **Survey Duration:** | 18:07 Wednesday, March 09, 2005 => 1:50 Saturday, March 12, 2005 |
| **File:** | UM2.1312.EC0 (Plus) |
| **Identifier:** | N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03 |
| **Algorithm:** | **Modified** - Factory default |
| **Data type:** | Axle sensors - Paired (Class, Speed, Count) |

**Profile:**

| | |
|---|---|
| **Filter time:** | **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005** |
| **Included classes:** | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 |
| **Speed range:** | 5 - 100 mph. |
| **Direction:** | South (bound) |
| **Separation:** | All - (Headway) |
| **Name:** | Factory default profile |
| **Scheme:** | Vehicle classification (Scheme F99) |
| **Units:** | Non metric (ft, mi, ft/s, mph, lb, ton) |
| **In profile:** | Vehicles = 1311 / 3625 (36.17%) |

*** Thursday, March 10, 2005 - Total=1311, 15 minute drops**

| 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2** | **2** | **9** | **3** | **9** | **29** | **96** | **106** | **88** | **77** | **58** | **73** | **63** | **59** | **83** | **113** | **108** | **121** | **66** | **49** | **25** | **33** | **21** | **18** | |
| 0 | 0 | 3 | 0 | 1 | 5 | 10 | **29** | 17 | 23 | 17 | 14 | 13 | 14 | 12 | 29 | 26 | 26 | 23 | 15 | 6 | 10 | 5 | 6 | - |
| 0 | 0 | 3 | 2 | 3 | 5 | **22** | 18 | 25 | 18 | 12 | 19 | 14 | 16 | 24 | 33 | 28 | 30 | 15 | 8 | 10 | 5 | 0 | 4 | - |
| 1 | 2 | 0 | 1 | 2 | 8 | **26** | 27 | 25 | 20 | 11 | 17 | 15 | 16 | 33 | 27 | 38 | 35 | 12 | 16 | 4 | 11 | 10 | 2 | - |
| 1 | 0 | 3 | 0 | 3 | 11 | **38** | 32 | 21 | 16 | 18 | 23 | 21 | 13 | 14 | 24 | 16 | 30 | 16 | 10 | 5 | 7 | 6 | 6 | - |

**AM Peak 0615 - 0715 (115), AM PHF=0.76**

# Vehicle Counts

**VehicleCount-347.1.1-NB**

**Datasets:**

| | |
|---|---|
| **Site:** | **[1.1] Sheriden Rd, 50' s/o White Sage** |
| **Direction:** | 5 - South bound A>B, North bound B>A., **Lane:** 0 |
| **Survey Duration:** | 18:07 Wednesday, March 09, 2005 => 1:50 Saturday, March 12, 2005 |
| **File:** | UM1.1312.EC0 (Plus) |
| **Identifier:** | N0269ZK4 MC56-L4 [MC55] (c)Microcom 19Sep03 |
| **Algorithm:** | **Modified** - Factory default |
| **Data type:** | Axle sensors - Paired (Class, Speed, Count) |

**Profile:**

| | |
|---|---|
| **Filter time:** | **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005** |
| **Included classes:** | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 |
| **Speed range:** | 5 - 100 mph. |
| **Direction:** | North (bound) |
| **Separation:** | All - (Headway) |
| **Name:** | Factory default profile |
| **Scheme:** | Vehicle classification (Scheme F99) |
| **Units:** | Non metric (ft, mi, ft/s, mph, lb, ton) |
| **In profile:** | Vehicles = 205 / 618 (33.17%) |

*** Thursday, March 10, 2005 - Total=205, 15 minute drops**

| 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **4** | **0** | **1** | **1** | **3** | **3** | **11** | **16** | **9** | **8** | **10** | **11** | **14** | **16** | **15** | **19** | **15** | **14** | **9** | **5** | **4** | **2** | **2** | **13** | |
| 0 | 0 | 1 | 0 | 1 | 1 | 0 | **6** | 2 | 4 | 2 | 7 | 0 | 4 | 4 | 4 | 3 | 4 | 2 | 1 | 1 | 1 | 2 | 0 | - |
| 0 | 0 | 0 | 0 | 0 | 1 | 2 | **3** | 4 | 0 | 2 | 3 | 4 | 8 | 5 | 5 | 2 | 4 | 4 | 4 | 0 | 0 | 0 | 4 | - |
| 4 | 0 | 0 | 1 | 1 | 0 | 4 | **5** | 2 | 2 | 4 | 1 | 6 | 3 | 4 | 5 | 5 | 1 | 1 | 0 | 3 | 0 | 0 | 5 | - |
| 0 | 0 | 0 | 0 | 1 | 1 | **5** | 2 | 1 | 2 | 2 | 0 | 4 | 1 | 2 | 5 | 5 | 5 | 2 | 0 | 0 | 1 | 0 | 4 | - |

**AM Peak 0645 - 0745 (19), AM PHF=0.79**

# Vehicle Counts

**VehicleCount-347.1.1-SB**

**Datasets:**

| | |
|---|---|
| **Site:** | **[1.1] Sheriden Rd, 50' s/o White Sage** |
| **Direction:** | 5 - South bound A>B, North bound B>A., **Lane:** 0 |
| **Survey Duration:** | 18:07 Wednesday, March 09, 2005 => 1:50 Saturday, March 12, 2005 |
| **File:** | UM1.1312.EC0 (Plus) |
| **Identifier:** | N0269ZK4 MC56-L4 [MC55] (c)Microcom 19Sep03 |
| **Algorithm:** | **Modified** - Factory default |
| **Data type:** | Axle sensors - Paired (Class, Speed, Count) |

**Profile:**

| | |
|---|---|
| **Filter time:** | **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005** |
| **Included classes:** | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 |
| **Speed range:** | 5 - 100 mph. |
| **Direction:** | South (bound) |
| **Separation:** | All - (Headway) |
| **Name:** | Factory default profile |
| **Scheme:** | Vehicle classification (Scheme F99) |
| **Units:** | Non metric (ft, mi, ft/s, mph, lb, ton) |
| **In profile:** | Vehicles = 242 / 618 (39.16%) |

*** Thursday, March 10, 2005 - Total=242, 15 minute drops**

| 0000 | 0100 | 0200 | 0300 | 0400 | 0500 | 0600 | 0700 | 0800 | 0900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2** | **1** | **2** | **1** | **0** | **2** | **19** | **20** | **14** | **11** | **13** | **13** | **8** | **17** | **20** | **27** | **21** | **14** | **9** | **8** | **2** | **2** | **5** | **11** | |
| 0 | 1 | 2 | 0 | 0 | 0 | 1 | **1** | 3 | 4 | 2 | 3 | 3 | 2 | 4 | 4 | 7 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | - |
| 2 | 0 | 0 | 0 | 0 | 0 | 4 | **6** | 4 | 1 | 4 | 3 | 4 | 5 | 4 | 4 | 6 | 4 | 5 | 3 | 0 | 2 | 1 | 0 | - |
| 0 | 0 | 0 | 1 | 0 | 1 | 4 | **6** | 5 | 5 | 3 | 4 | 1 | 4 | 4 | 8 | 5 | 4 | 3 | 2 | 2 | 0 | 2 | 5 | - |
| 0 | 0 | 0 | 0 | 0 | 1 | **10** | 7 | 2 | 1 | 4 | 3 | 0 | 6 | 8 | 11 | 3 | 5 | 0 | 2 | 0 | 0 | 2 | 6 | - |

**AM Peak 0645 - 0745 (23), AM PHF=0.57**

**2004 VOLUMES**

| District | Route | Rte Suf | County | PM Prefix | Postmile | Description | Back Peak Hour | Back Peak Month | Back AADT | Ahead Peak Hour | Ahead Peak Month | Ahead AADT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 94 | | SD | | 8.27 | LEMON GROVE, | 11500 | 145000 | 144000 | 11800 | 149000 | 148000 |
| 11 | 94 | | SD | | 8.77 | LEMON GROVE, WAITE DRIVE | 11800 | 149000 | 148000 | 12100 | 143000 | 141000 |
| 11 | 94 | | SD | | 8.98 | LEMON GROVE, LEMON GROVE | 12100 | 143000 | 141000 | 12400 | 146000 | 144000 |
| 11 | 94 | | SD | | 10.01 | JCT. RTE. 125 (MILEPOST | 12400 | 146000 | 144000 | 7000 | 82000 | 81000 |
| 11 | 94 | | SD | R | 11.08 | SPRING VALLEY, BANCROFT | 7000 | 82000 | 81000 | 6400 | 75000 | 74000 |
| 11 | 94 | | SD | R | 11.8 | CASA DE ORO, KENWOOD DRIVE | 6400 | 75000 | 74000 | 5300 | 63000 | 62000 |
| 11 | 94 | | SD | R | 12.75 | SWEETWATER SPRINGS | 5300 | 63000 | 62000 | 4900 | 59000 | 57000 |
| 11 | 94 | | SD | R | 13.14 | END FREEWAY | | | | | | |
| 11 | 94 | | SD | R | 13.33 | AVOCADO BOULEVARD | 4900 | 59000 | 57000 | 4150 | 50000 | 48500 |
| 11 | 94 | | SD | R | 13.54 | MILEPOST EQUATION =13.59 | | | | | | |
| 11 | 94 | | SD | | 14.33 | JAMACHA ROAD | 4150 | 50000 | 48500 | 5500 | 66000 | 64000 |
| 11 | 94 | | SD | | 14.86 | JCT. RTE. 54 NORTH | 5500 | 66000 | 64000 | 1900 | 22900 | 22300 |
| 11 | 94 | | SD | | 17.35 | STEELE CANYON ROAD | 1900 | 22900 | 22300 | 1650 | 19900 | 19400 |
| 11 | 94 | | SD | R | 19.27 | MILEPOST EQUATION =19.35 | | | | | | |
| 11 | 94 | | SD | | 19.4 | LYONS VALLEY ROAD | 1650 | 19900 | 19400 | 1100 | 13100 | 12800 |
| 11 | 94 | | SD | | 24.55 | HONEY SPRINGS ROAD | 760 | 8600 | 8500 | 740 | 8400 | 8300 |
| 11 | 94 | | SD | | 28.3 | DULZURA POST OFFICE | 740 | 8400 | 8300 | 770 | 8800 | 8700 |
| 11 | 94 | | SD | | 38.97 | JCT. RTE. 188 SOUTH, TECATE | 590 | 6900 | 6600 | 200 | 2800 | 2500 |
| 11 | 94 | | SD | R | 45.48 | MILEPOST EQUATION =45.57 | | | | | | |
| 11 | 94 | | SD | R | 47.38 | MILEPOST EQUATION =47.42 | | | | | | |
| 11 | 94 | | SD | R | 50.59 | MILEPOST EQUATION =50.63 | | | | | | |
| 11 | 94 | | SD | | 52.15 | BUCKMAN SPRINGS ROAD | 170 | 2350 | 2100 | 180 | 2450 | 2200 |
| 11 | 94 | | SD | | 64.23 | WHITE STAR, JUNCTION OLD | 110 | 920 | 900 | 210 | 1850 | 1800 |
| 11 | 94 | | SD | | 64.82 | JEWEL VALLEY/RIBBONWOOD | 210 | 1850 | 1800 | 110 | 920 | 900 |
| 11 | 94 | | SD | | 65.38 | JCT. RTE. 8 | 110 | 920 | 900 | | | |

# Speed Statistics

**SpeedStat-347.2.1-NB**
**Site:** 2.1.0NS
**Description:** **Buckman Springs Rd, btwn I-8 and SR-94**
**Filter time:** **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(N) Sp(5,100) Sep(>0)

**Vehicles = 1305**
**Posted speed limit=** 55 mph, Exceeding = 760 (58.24%), Mean Exceeding = 61.53 mph
**Maximum** = 93.9 mph, **Minimum** = 8.4 mph, **Mean** = 56.3 mph
**85% Speed** = 64.0 mph, **95% Speed** = 69.1 mph, **Median** = 56.4 mph
**10 mph Pace** = 52 - 62, **Number in Pace** = 677 (51.88%)
**Variance** = 68.72, **Standard Deviation** = 8.29 mph

## Speed Bins

| Speed | Bin | | Below | | Above | | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|---|---|---|
| 0 - **5** | 0 | 0.0% | 0 | 0.0% | 1305 | 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - **10** | 1 | 0.1% | 1 | 0.1% | 1304 | 99.9% | 0.00 | 0.00 | 0.00 |
| 10 - **15** | 2 | 0.2% | 3 | 0.2% | 1302 | 99.8% | 0.00 | 0.00 | 0.00 |
| 15 - **20** | 3 | 0.2% | 6 | 0.5% | 1299 | 99.5% | 0.00 | 0.00 | 0.00 |
| 20 - **25** | 0 | 0.0% | 6 | 0.5% | 1299 | 99.5% | 0.00 | 0.00 | 0.00 |
| 25 - **30** | 1 | 0.1% | 7 | 0.5% | 1298 | 99.5% | 0.00 | 0.00 | 0.00 |
| 30 - **35** | 11 | 0.8% | 18 | 1.4% | 1287 | 98.6% | 0.00 | 0.00 | 0.00 |
| 35 - **40** | 20 | 1.5% | 38 | 2.9% | 1267 | 97.1% | 0.00 | 0.00 | 0.00 |
| 40 - **45** | 64 | 4.9% | 102 | 7.8% | 1203 | 92.2% | 0.00 | 0.00 | 0.00 |
| 45 - **50** | 135 | 10.3% | 237 | 18.2% | 1068 | 81.8% | 0.00 | 0.00 | 0.00 |
| 50 - **55** | 308 | 23.6% | 545 | 41.8% | 760 | 58.2% | 0.00 | 0.00 | 0.00 |
| 55 - **60** | 346 | 26.5% | 891 | 68.3% | 414 | 31.7% | 0.00 | 0.00 | 0.00 |
| 60 - **65** | 250 | 19.2% | 1141 | 87.4% | 164 | 12.6% | 0.00 | 0.00 | 0.00 |
| 65 - **70** | 112 | 8.6% | 1253 | 96.0% | 52 | 4.0% | 0.00 | 0.00 | 0.00 |
| 70 - **75** | 41 | 3.1% | 1294 | 99.2% | 11 | 0.8% | 0.00 | 0.00 | 0.00 |
| 75 - **80** | 8 | 0.6% | 1302 | 99.8% | 3 | 0.2% | 0.00 | 0.00 | 0.00 |
| 80 - **85** | 1 | 0.1% | 1303 | 99.8% | 2 | 0.2% | 0.00 | 0.00 | 0.00 |
| 85 - **90** | 1 | 0.1% | 1304 | 99.9% | 1 | 0.1% | 0.00 | 0.00 | 0.00 |
| 90 - **95** | 1 | 0.1% | 1305 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - **100** | 0 | 0.0% | 1305 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | | Above | |
|---|---|---|---|---|---|
| 0 | 55 (PSL) | 545 | 41.8% | 760 | 58.2% |

# Speed Statistics

**SpeedStat-347.2.1-SB**
**Site:** 2.1.0NS
**Description:** **Buckman Springs Rd, btwn I-8 and SR-94**
**Filter time:** **0:00 Thursday, March 10, 2005 => 0:00 Friday, March 11, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(S) Sp(5,100) Sep(>0)

**Vehicles = 1311**
**Posted speed limit=** 55 mph, Exceeding = 892 (68.04%), Mean Exceeding = 62.61 mph
**Maximum** = 87.1 mph, **Minimum** = 14.7 mph, **Mean** = 58.5 mph
**85% Speed** = 66.2 mph, **95% Speed** = 71.1 mph, **Median** = 58.6 mph
**10 mph Pace** = 52 - 62, **Number in Pace** = 667 (50.88%)
**Variance** = 66.17, **Standard Deviation** = 8.13 mph

## Speed Bins

| Speed | Bin | | Below | | Above | | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|---|---|---|
| 0 - 5 | 0 | 0.0% | 0 | 0.0% | 1311 | 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - 10 | 0 | 0.0% | 0 | 0.0% | 1311 | 100.0% | 0.00 | 0.00 | 0.00 |
| 10 - 15 | 1 | 0.1% | 1 | 0.1% | 1310 | 99.9% | 0.00 | 0.00 | 0.00 |
| 15 - 20 | 2 | 0.2% | 3 | 0.2% | 1308 | 99.8% | 0.00 | 0.00 | 0.00 |
| 20 - 25 | 1 | 0.1% | 4 | 0.3% | 1307 | 99.7% | 0.00 | 0.00 | 0.00 |
| 25 - 30 | 0 | 0.0% | 4 | 0.3% | 1307 | 99.7% | 0.00 | 0.00 | 0.00 |
| 30 - 35 | 4 | 0.3% | 8 | 0.6% | 1303 | 99.4% | 0.00 | 0.00 | 0.00 |
| 35 - 40 | 14 | 1.1% | 22 | 1.7% | 1289 | 98.3% | 0.00 | 0.00 | 0.00 |
| 40 - 45 | 34 | 2.6% | 56 | 4.3% | 1255 | 95.7% | 0.00 | 0.00 | 0.00 |
| 45 - 50 | 108 | 8.2% | 164 | 12.5% | 1147 | 87.5% | 0.00 | 0.00 | 0.00 |
| 50 - 55 | 255 | 19.5% | 419 | 32.0% | 892 | 68.0% | 0.00 | 0.00 | 0.00 |
| 55 - 60 | 347 | 26.5% | 766 | 58.4% | 545 | 41.6% | 0.00 | 0.00 | 0.00 |
| 60 - 65 | 293 | 22.3% | 1059 | 80.8% | 252 | 19.2% | 0.00 | 0.00 | 0.00 |
| 65 - 70 | 164 | 12.5% | 1223 | 93.3% | 88 | 6.7% | 0.00 | 0.00 | 0.00 |
| 70 - 75 | 63 | 4.8% | 1286 | 98.1% | 25 | 1.9% | 0.00 | 0.00 | 0.00 |
| 75 - 80 | 13 | 1.0% | 1299 | 99.1% | 12 | 0.9% | 0.00 | 0.00 | 0.00 |
| 80 - 85 | 10 | 0.8% | 1309 | 99.8% | 2 | 0.2% | 0.00 | 0.00 | 0.00 |
| 85 - 90 | 2 | 0.2% | 1311 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 90 - 95 | 0 | 0.0% | 1311 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - 100 | 0 | 0.0% | 1311 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | | Above | |
|---|---|---|---|---|---|
| 0 | 55 (PSL) | 419 | 32.0% | 892 | 68.0% |

# Speed Statistics

**SpeedStat-372.5.2-EB**
**Site:** 3720101.0WE
**Description:** **Eastbound Speed 1.2 Miles East of La Posta Rd on SR-94**
**Filter time:** **0:00 Wednesday, June 01, 2005 => 0:00 Thursday, June 02, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(W) Sp(5,100) Sep(>0)

**Vehicles = 26**
**Posted speed limit=** 55 mph, Exceeding = 1 (3.85%), Mean Exceeding = 55.90 mph
**Maximum** = 55.9 mph, **Minimum** = 24.0 mph, **Mean** = 42.8 mph
**85% Speed** = 50.6 mph, **95% Speed** = 53.9 mph, **Median** = 43.6 mph
**10 mph Pace** = 42 - 52, **Number in Pace** = 15 (57.69%)
**Variance** = 64.88, **Standard Deviation** = 8.05 mph

## Speed Bins

| Speed | Bin | | Below | | Above | | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|---|---|---|
| 0 - 5 | 0 | 0.0% | 0 | 0.0% | 26 | 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - 10 | 0 | 0.0% | 0 | 0.0% | 26 | 100.0% | 0.00 | 0.00 | 0.00 |
| 10 - 15 | 0 | 0.0% | 0 | 0.0% | 26 | 100.0% | 0.00 | 0.00 | 0.00 |
| 15 - 20 | 0 | 0.0% | 0 | 0.0% | 26 | 100.0% | 0.00 | 0.00 | 0.00 |
| 20 - 25 | 1 | 3.8% | 1 | 3.8% | 25 | 96.2% | 0.00 | 0.00 | 0.00 |
| 25 - 30 | 1 | 3.8% | 2 | 7.7% | 24 | 92.3% | 0.00 | 0.00 | 0.00 |
| 30 - 35 | 2 | 7.7% | 4 | 15.4% | 22 | 84.6% | 0.00 | 0.00 | 0.00 |
| 35 - 40 | 4 | 15.4% | 8 | 30.8% | 18 | 69.2% | 0.00 | 0.00 | 0.00 |
| 40 - 45 | 8 | 30.8% | 16 | 61.5% | 10 | 38.5% | 0.00 | 0.00 | 0.00 |
| 45 - 50 | 5 | 19.2% | 21 | 80.8% | 5 | 19.2% | 0.00 | 0.00 | 0.00 |
| 50 - 55 | 4 | 15.4% | 25 | 96.2% | 1 | 3.8% | 0.00 | 0.00 | 0.00 |
| 55 - 60 | 1 | 3.8% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 60 - 65 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 65 - 70 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 70 - 75 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 75 - 80 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 80 - 85 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 85 - 90 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 90 - 95 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - 100 | 0 | 0.0% | 26 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | | Above | |
|---|---|---|---|---|---|
| 0 | 55 (PSL) | 25 | 96.2% | 1 | 3.8% |

# Speed Statistics

**SpeedStat-372.5.1-WB**
**Site:** 3720102.0EW
**Description:** **Westbound speed Survey 1.2 miles E/O La Posta Rd on SR-94**
**Filter time:** **0:00 Wednesday, June 01, 2005 => 0:00 Thursday, June 02, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(W) Sp(5,100) Sep(>0)

**Vehicles = 426**
**Posted speed limit=** 55 mph, Exceeding = 11 (2.58%), Mean Exceeding = 58.63 mph
**Maximum** = 72.7 mph, **Minimum** = 16.0 mph, **Mean** = 41.1 mph
**85% Speed** = 47.4 mph, **95% Speed** = 52.1 mph, **Median** = 41.2 mph
**10 mph Pace** = 37 - 47, **Number in Pace** = 252 (59.15%)
**Variance** = 55.29, **Standard Deviation** = 7.44 mph

## Speed Bins

| Speed | Bin | | Below | | Above | | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|---|---|---|
| 0 - 5 | 0 | 0.0% | 0 | 0.0% | 426 | 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - 10 | 0 | 0.0% | 0 | 0.0% | 426 | 100.0% | 0.00 | 0.00 | 0.00 |
| 10 - 15 | 0 | 0.0% | 0 | 0.0% | 426 | 100.0% | 0.00 | 0.00 | 0.00 |
| 15 - 20 | 2 | 0.5% | 2 | 0.5% | 424 | 99.5% | 0.00 | 0.00 | 0.00 |
| 20 - 25 | 15 | 3.5% | 17 | 4.0% | 409 | 96.0% | 0.00 | 0.00 | 0.00 |
| 25 - 30 | 20 | 4.7% | 37 | 8.7% | 389 | 91.3% | 0.00 | 0.00 | 0.00 |
| 30 - 35 | 34 | 8.0% | 71 | 16.7% | 355 | 83.3% | 0.00 | 0.00 | 0.00 |
| 35 - 40 | 99 | 23.2% | 170 | 39.9% | 256 | 60.1% | 0.00 | 0.00 | 0.00 |
| 40 - 45 | 136 | 31.9% | 306 | 71.8% | 120 | 28.2% | 0.00 | 0.00 | 0.00 |
| 45 - 50 | 80 | 18.8% | 386 | 90.6% | 40 | 9.4% | 0.00 | 0.00 | 0.00 |
| 50 - 55 | 29 | 6.8% | 415 | 97.4% | 11 | 2.6% | 0.00 | 0.00 | 0.00 |
| 55 - 60 | 9 | 2.1% | 424 | 99.5% | 2 | 0.5% | 0.00 | 0.00 | 0.00 |
| 60 - 65 | 1 | 0.2% | 425 | 99.8% | 1 | 0.2% | 0.00 | 0.00 | 0.00 |
| 65 - 70 | 0 | 0.0% | 425 | 99.8% | 1 | 0.2% | 0.00 | 0.00 | 0.00 |
| 70 - 75 | 1 | 0.2% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 75 - 80 | 0 | 0.0% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 80 - 85 | 0 | 0.0% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 85 - 90 | 0 | 0.0% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 90 - 95 | 0 | 0.0% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - 100 | 0 | 0.0% | 426 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | | Above | |
|---|---|---|---|---|---|
| 0 | 55 (PSL) | 415 | 97.4% | 11 | 2.6% |

# Speed Statistics

**SpeedStat-411.1.1-NB**
**Site:** 41101.0SN
**Description:** **Sheridan Rd Btwn Custer Rd & Dodd Rd**
**Filter time:** **0:00 Thursday, June 30, 2005 => 0:00 Friday, July 01, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(N) Sp(5,100) Sep(>0)

**Vehicles = 197**
**Posted speed limit=** 35 mph, Exceeding = 97 (49.24%), Mean Exceeding = 40.18 mph
**Maximum** = 48.7 mph, **Minimum** = 11.0 mph, **Mean** = 34.8 mph
**85% Speed** = 41.8 mph, **95% Speed** = 44.3 mph, **Median** = 34.7 mph
**10 mph Pace** = 30 - 40, **Number in Pace** = 112 (56.85%)
**Variance** = 44.77, **Standard Deviation** = 6.69 mph

## Speed Bins

| Speed | Bin | | Below | | Above | | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|---|---|---|
| 0 - 5 | 0 | 0.0% | 0 | 0.0% | 197 | 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - 10 | 0 | 0.0% | 0 | 0.0% | 197 | 100.0% | 0.00 | 0.00 | 0.00 |
| 10 - 15 | 2 | 1.0% | 2 | 1.0% | 195 | 99.0% | 0.00 | 0.00 | 0.00 |
| 15 - 20 | 2 | 1.0% | 4 | 2.0% | 193 | 98.0% | 0.00 | 0.00 | 0.00 |
| 20 - 25 | 12 | 6.1% | 16 | 8.1% | 181 | 91.9% | 0.00 | 0.00 | 0.00 |
| 25 - 30 | 23 | 11.7% | 39 | 19.8% | 158 | 80.2% | 0.00 | 0.00 | 0.00 |
| 30 - 35 | 61 | 31.0% | 100 | 50.8% | 97 | 49.2% | 0.00 | 0.00 | 0.00 |
| 35 - 40 | 50 | 25.4% | 150 | 76.1% | 47 | 23.9% | 0.00 | 0.00 | 0.00 |
| 40 - 45 | 38 | 19.3% | 188 | 95.4% | 9 | 4.6% | 0.00 | 0.00 | 0.00 |
| 45 - 50 | 9 | 4.6% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 50 - 55 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 55 - 60 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 60 - 65 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 65 - 70 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 70 - 75 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 75 - 80 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 80 - 85 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 85 - 90 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 90 - 95 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - 100 | 0 | 0.0% | 197 | 100.0% | 0 | 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | | Above | |
|---|---|---|---|---|---|
| 0 | 35 (PSL) | 100 | 50.8% | 97 | 49.2% |

# Speed Statistics

**SpeedStat-411.1.1-SB**
**Site:** 41101.0SN
**Description:** **Sheridan Rd Btwn Custer Rd & Dodd Rd**
**Filter time:** **0:00 Thursday, June 30, 2005 => 0:00 Friday, July 01, 2005**
**Scheme:** Vehicle classification (Scheme F99)
**Filter:** Cls(1 2 3 4 5 6 7 8 9 10 11 12 13 ) Dir(S) Sp(5,100) Sep(>0)

**Vehicles = 243**
**Posted speed limit=** 35 mph, Exceeding = 100 (41.15%), Mean Exceeding = 38.87 mph
**Maximum** = 49.2 mph, **Minimum** = 14.1 mph, **Mean** = 33.2 mph
**85% Speed** = 39.6 mph, **95% Speed** = 41.6 mph, **Median** = 33.3 mph
**10 mph Pace** = 31 - 41, **Number in Pace** = 145 (59.67%)
**Variance** = 38.03, **Standard Deviation** = 6.17 mph

## Speed Bins

| Speed | Bin | Below | Above | Energy | vMult | n * vMult |
|---|---|---|---|---|---|---|
| 0 - **5** | 0 0.0% | 0 0.0% | 243 100.0% | 0.00 | 0.00 | 0.00 |
| 5 - **10** | 0 0.0% | 0 0.0% | 243 100.0% | 0.00 | 0.00 | 0.00 |
| 10 - **15** | 2 0.8% | 2 0.8% | 241 99.2% | 0.00 | 0.00 | 0.00 |
| 15 - **20** | 6 2.5% | 8 3.3% | 235 96.7% | 0.00 | 0.00 | 0.00 |
| 20 - **25** | 15 6.2% | 23 9.5% | 220 90.5% | 0.00 | 0.00 | 0.00 |
| 25 - **30** | 45 18.5% | 68 28.0% | 175 72.0% | 0.00 | 0.00 | 0.00 |
| 30 - **35** | 75 30.9% | 143 58.8% | 100 41.2% | 0.00 | 0.00 | 0.00 |
| 35 - **40** | 66 27.2% | 209 86.0% | 34 14.0% | 0.00 | 0.00 | 0.00 |
| 40 - **45** | 33 13.6% | 242 99.6% | 1 0.4% | 0.00 | 0.00 | 0.00 |
| 45 - **50** | 1 0.4% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 50 - **55** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 55 - **60** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 60 - **65** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 65 - **70** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 70 - **75** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 75 - **80** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 80 - **85** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 85 - **90** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 90 - **95** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |
| 95 - **100** | 0 0.0% | 243 100.0% | 0 0.0% | 0.00 | 0.00 | 0.00 |

**Total Speed Rating** = 0.00
**Total Moving Energy (Estimated)** = 0.00

## Speed limit fields

| | Limit | Below | Above |
|---|---|---|---|
| 0 | 35 (PSL) | 143 58.8% | 100 41.2% |

# APPENDIX C

# EXISTING INTERSECTION LEVEL OF SERVICE CALCUALTIONS

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 2 | 0 | 1 | 4 | 1 | 32 | 2 | 41 | 14 | 47 | 33 | 2 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 2 | 0 | 1 | 4 | 1 | 34 | 2 | 43 | 15 | 49 | 35 | 2 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 224 | 197 | 36 | 191 | 191 | 51 | 37 | | | 58 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 224 | 197 | 36 | 191 | 191 | 51 | 37 | | | 58 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 100 | 100 | 100 | 99 | 100 | 97 | 100 | | | 97 | | |
| cM capacity (veh/h) | 689 | 675 | 1037 | 749 | 681 | 1018 | 1574 | | | 1546 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 3 | 39 | 60 | 86 |
| Volume Left | 2 | 4 | 2 | 49 |
| Volume Right | 1 | 34 | 15 | 2 |
| cSH | 776 | 967 | 1574 | 1546 |
| Volume to Capacity | 0.00 | 0.04 | 0.00 | 0.03 |
| Queue Length 95th (ft) | 0 | 3 | 0 | 2 |
| Control Delay (s) | 9.7 | 8.9 | 0.3 | 4.3 |
| Lane LOS | A | A | A | A |
| Approach Delay (s) | 9.7 | 8.9 | 0.3 | 4.3 |
| Approach LOS | A | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 4.1 | | |
| Intersection Capacity Utilization | 21.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 50 | 22 | 16 | 42 | 10 | 6 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 53 | 23 | 17 | 44 | 11 | 6 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 76 | | 142 | 64 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 76 | | 142 | 64 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 99 | 99 |
| cM capacity (veh/h) | | | 1523 | | 841 | 1000 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 76 | 61 | 17 |
| Volume Left | 0 | 17 | 11 |
| Volume Right | 23 | 0 | 6 |
| cSH | 1700 | 1523 | 895 |
| Volume to Capacity | 0.04 | 0.01 | 0.02 |
| Queue Length 95th (ft) | 0 | 1 | 1 |
| Control Delay (s) | 0.0 | 2.1 | 9.1 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 2.1 | 9.1 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 1.8 | | |
| Intersection Capacity Utilization | 19.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 11 | 8 | 1 | 13 | 11 | 43 | 3 | 29 | 1 | 35 | 37 | 8 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 12 | 8 | 1 | 14 | 12 | 45 | 3 | 31 | 1 | 37 | 39 | 8 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 205 | 155 | 43 | 159 | 158 | 31 | 47 | | | 32 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 205 | 155 | 43 | 159 | 158 | 31 | 47 | | | 32 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 98 | 99 | 100 | 98 | 98 | 96 | 100 | | | 98 | | |
| cM capacity (veh/h) | 697 | 718 | 1027 | 783 | 715 | 1043 | 1560 | | | 1581 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 21 | 71 | 35 | 84 |
| Volume Left | 12 | 14 | 3 | 37 |
| Volume Right | 1 | 45 | 1 | 8 |
| cSH | 717 | 915 | 1560 | 1581 |
| Volume to Capacity | 0.03 | 0.08 | 0.00 | 0.02 |
| Queue Length 95th (ft) | 2 | 6 | 0 | 2 |
| Control Delay (s) | 10.2 | 9.3 | 0.7 | 3.3 |
| Lane LOS | B | A | A | A |
| Approach Delay (s) | 10.2 | 9.3 | 0.7 | 3.3 |
| Approach LOS | B | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.6 | | |
| Intersection Capacity Utilization | 21.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 63 | 8 | 9 | 44 | 21 | 12 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 66 | 8 | 9 | 46 | 22 | 13 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 75 | | 136 | 71 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 75 | | 136 | 71 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 97 | 99 |
| cM capacity (veh/h) | | | 1525 | | 852 | 992 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 75 | 56 | 35 |
| Volume Left | 0 | 9 | 22 |
| Volume Right | 8 | 0 | 13 |
| cSH | 1700 | 1525 | 898 |
| Volume to Capacity | 0.04 | 0.01 | 0.04 |
| Queue Length 95th (ft) | 0 | 0 | 3 |
| Control Delay (s) | 0.0 | 1.3 | 9.2 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 1.3 | 9.2 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 2.4 | |
| Intersection Capacity Utilization | | 19.5% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

# APPENDIX D

# CALTRANS' K AND D FACTORS

| | | | | | | | | | AM PEAK | | | | | | | PM PEAK | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DI | RTE | CO | PRE | PM | CS | LEG | YR | Dir | 1 WAY PHV | % K | % D | % KD | HR | DAY | MNTH | Dir | 1 WAY PHV | % K | % D | % KD | HR | DAY | MNTH |
| 08 | 091 | RIV | | 11.99 | 812 | X | 01 | W | 8373 | 8 | 66.42 | 5.31 | 11 | WED | AUG | W | 6276 | 7.53 | 52.89 | 3.98 | 17 | FRI | DEC |
| 08 | 091 | RIV | | 21.66 | 985 | B | 01 | E | 5939 | 7.64 | 52.05 | 3.98 | 9 | WED | DEC | E | 5560 | 6.92 | 53.8 | 3.72 | 14 | FRI | MAY |
| 04 | 092 | SM | | 5.191 | 57 | A | 03 | W | 1550 | 10.38 | 58.6 | 6.08 | 12 | SUN | NOV | W | 1527 | 9.32 | 64.27 | 5.99 | 17 | TUE | NOV |
| 04 | 092 | SM | T | 6.52 | 196 | A | 03 | E | 1254 | 7.45 | 74.91 | 5.58 | 7 | WED | MAY | E | 1335 | 9.36 | 63.48 | 5.94 | 17 | SUN | MAY |
| 04 | 092 | SM | R | 7.303 | 197 | A | 03 | E | 4653 | 11.26 | 52.67 | 5.93 | 8 | WED | NOV | W | 4514 | 11.23 | 51.26 | 5.75 | 17 | THU | MAY |
| 04 | 092 | SM | R | 11.21 | 198 | B | 03 | E | 4782 | 9.77 | 51.66 | 5.05 | 8 | WED | MAY | W | 4769 | 8.99 | 55.98 | 5.03 | 17 | MON | MAY |
| 04 | 092 | ALA | | 8.219 | 32 | B | 03 | W | 2045 | 8.55 | 59.92 | 5.13 | 7 | WED | NOV | E | 2166 | 9.31 | 58.3 | 5.43 | 17 | THU | AUG |
| 11 | 094 | SD | | 1.418 | 936 | A | 03 | W | 6948 | 8.09 | 81.14 | 6.56 | 7 | TUE | JUL | E | 7385 | 9.49 | 73.53 | 6.97 | 16 | MON | FEB |
| 11 | 094 | SD | | 5.789 | 989 | B | 03 | W | 8696 | 7.49 | 67.55 | 5.06 | 7 | WED | FEB | E | 9417 | 8.44 | 64.89 | 5.48 | 17 | FRI | FEB |
| 11 | 094 | SD | | 8.983 | 990 | B | 03 | W | 6943 | 7.04 | 69.64 | 4.91 | 6 | MON | NOV | E | 7961 | 8.69 | 64.71 | 5.63 | 16 | TUE | APR |
| 11 | 094 | SD | R | 13.33 | 959 | B | 03 | W | 2736 | 7.78 | 67.39 | 5.24 | 7 | TUE | DEC | E | 2883 | 9.16 | 60.34 | 5.52 | 17 | WED | FEB |
| 11 | 094 | SD | | 24.55 | 975 | B | 03 | W | 542 | 8.6 | 75.91 | 6.53 | 6 | WED | NOV | E | 550 | 8.89 | 74.53 | 6.62 | 17 | FRI | OCT |
| 11 | 094 | SD | | 38.97 | 856 | B | 03 | W | 640 | 11.02 | 90.14 | 9.93 | 6 | TUE | MAY | E | 563 | 11.41 | 76.6 | 8.74 | 17 | FRI | MAY |
| 11 | 094 | SD | | 38.97 | 857 | A | 03 | W | 135 | 8.4 | 65.85 | 5.53 | 9 | MON | MAY | E | 167 | 10.16 | 67.34 | 6.84 | 14 | FRI | MAY |
| 11 | 094 | SD | | 64.23 | 858 | B | 03 | E | 56 | 10.59 | 61.54 | 6.52 | 9 | SAT | JUN | W | 52 | 11.64 | 52 | 6.05 | 14 | FRI | JUN |
| 08 | 095 | RIV | | 0 | 874 | A | 02 | S | 154 | 9.36 | 51.33 | 4.81 | 12 | FRI | MAR | N | 189 | 9.02 | 65.4 | 5.9 | 16 | FRI | JUN |
| 08 | 095 | RIV | | 3.52 | 912 | B | 02 | N | 162 | 9.22 | 59.78 | 5.51 | 10 | MON | MAR | S | 190 | 9.29 | 69.6 | 6.47 | 15 | SUN | JUN |
| 08 | 095 | RIV | | 3.52 | 918 | A | 02 | N | 136 | 8.75 | 63.26 | 5.53 | 10 | SAT | MAR | S | 167 | 9.56 | 71.06 | 6.79 | 18 | SUN | JUN |
| 08 | 095 | RIV | | 10.54 | 903 | A | 02 | N | 112 | 10.88 | 55.72 | 6.06 | 11 | MON | MAR | S | 126 | 11.96 | 57.01 | 6.82 | 14 | SUN | MAR |
| 08 | 095 | RIV | | 36.20 | 906 | B | 02 | N | 99 | 10.86 | 58.24 | 6.33 | 12 | MON | MAR | N | 100 | 11.95 | 53.48 | 6.39 | 13 | FRI | MAR |
| 08 | 095 | SBD | | 9.684 | 848 | A | 02 | N | 194 | 11.03 | 60.63 | 6.69 | 12 | MON | MAR | S | 218 | 11.51 | 65.27 | 7.51 | 14 | SUN | JUL |
| 08 | 095 | SBD | | 37.3 | 847 | B | 02 | N | 170 | 11.03 | 53.13 | 5.86 | 11 | FRI | MAR | S | 177 | 12.06 | 50.57 | 6.1 | 13 | SUN | MAR |
| 08 | 095 | SBD | | 57.28 | 806 | B | 02 | N | 243 | 9.48 | 54.98 | 5.21 | 12 | SUN | MAR | N | 256 | 9.48 | 57.92 | 5.49 | 14 | FRI | MAR |
| 08 | 095 | SBD | R | 57.24 | 958 | A | 02 | N | 166 | 8.41 | 67.48 | 5.68 | 10 | WED | MAR | N | 201 | 12.24 | 56.15 | 6.87 | 13 | SUN | MAR |
| 01 | 096 | HUM | | 3.59 | 108 | O | 02 | W | 105 | 7.97 | 69.08 | 5.5 | 12 | SAT | AUG | W | 118 | 11.43 | 54.13 | 6.18 | 16 | FRI | NOV |
| 02 | 096 | SIS | | 41.10 | 135 | A | 02 | W | 106 | 9.45 | 51.71 | 4.88 | 10 | MON | AUG | W | 130 | 10.92 | 54.85 | 5.99 | 13 | FRI | AUG |
| 02 | 096 | SIS | | 60.76 | 303 | O | 03 | W | 42 | 9.85 | 70 | 6.9 | 9 | SAT | AUG | W | 47 | 12.48 | 61.84 | 7.72 | 17 | FRI | JUN |
| 02 | 096 | SIS | | 103.4 | 137 | B | 02 | E | 54 | 10.25 | 62.79 | 6.44 | 12 | FRI | AUG | E | 65 | 14.42 | 53.72 | 7.75 | 15 | FRI | AUG |
| 02 | 096 | SIS | | 105.8 | 243 | B | 02 | W | 34 | 11.83 | 59.65 | 7.05 | 12 | MON | MAY | W | 40 | 14.52 | 57.14 | 8.3 | 18 | FRI | AUG |
| 02 | 097 | SIS | L | 0 | 268 | A | 02 | N | 516 | 8.79 | 50.59 | 4.45 | 12 | FRI | AUG | N | 604 | 9.88 | 52.71 | 5.21 | 17 | FRI | AUG |
| 02 | 097 | SIS | L | .429 | 138 | A | 02 | N | 317 | 9.19 | 52.4 | 4.82 | 12 | FRI | AUG | N | 360 | 9.39 | 58.25 | 5.47 | 18 | THU | AUG |
| 02 | 097 | SIS | | 20.19 | 183 | B | 03 | S | 195 | 11.05 | 56.03 | 6.19 | 10 | SUN | AUG | S | 203 | 11.91 | 54.13 | 6.45 | 15 | SUN | AUG |
| 02 | 097 | SIS | | 36.15 | 311 | B | 03 | S | 219 | 11.93 | 60.33 | 7.2 | 12 | SUN | JUL | N | 210 | 13.54 | 50.97 | 6.9 | 14 | SUN | AUG |

# APPENDIX E

# EXISTING TWO-LANE HIGHWAY (HCM) CALCULATIONS

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 138 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 268 | pc/h |
| Highest directional split proportion (note-2) | 180 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.8 | mi/h |
| Average travel speed, ATS | 48.9 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 226 | pc/h |
| Highest directional split proportion (note-2) | 151 | |
| Base percent time-spent-following, BPTSF | 18.0 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 24.7 | |
| Percent time-spent-following, PTSF | 42.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.08 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 463 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1628 | veh-mi |
| Peak 15-min total travel time, TT15 | 9.5 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 171 | | veh/h |
| Directional split | 67 | / 33 | % |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 332 | pc/h |
| Highest directional split proportion (note-2) | 222 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.2 | mi/h |
| Average travel speed, ATS | 48.1 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 281 | pc/h |
| Highest directional split proportion (note-2) | 188 | |
| Base percent time-spent-following, BPTSF | 21.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 24.1 | |
| Percent time-spent-following, PTSF | 46.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.10 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 573 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2018 | veh-mi |
| Peak 15-min total travel time, TT15 | 11.9 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 138 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 172 | pc/h |
| Highest directional split proportion (note-2) | 115 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.6 | mi/h |
| Average travel speed, ATS | 51.8 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 159 | pc/h |
| Highest directional split proportion (note-2) | 107 | |
| Base percent time-spent-following, BPTSF | 13.0 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.7 | |
| Percent time-spent-following, PTSF | 34.8 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.05 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 55 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 193 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 171 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 213 | pc/h |
| Highest directional split proportion (note-2) | 143 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.0 | mi/h |
| Average travel speed, ATS | 51.2 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 197 | pc/h |
| Highest directional split proportion (note-2) | 132 | |
| Base percent time-spent-following, BPTSF | 15.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.4 | |
| Percent time-spent-following, PTSF | 37.3 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 68 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 239 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 143 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 178 | pc/h |
| Highest directional split proportion (note-2) | 101 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.7 | mi/h |
| Average travel speed, ATS | 51.7 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 165 | pc/h |
| Highest directional split proportion (note-2) | 94 | |
| Base percent time-spent-following, BPTSF | 13.5 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 33.1 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 33 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 114 | veh-mi |
| Peak 15-min total travel time, TT15 | 0.6 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 133 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 166 | pc/h |
| Highest directional split proportion (note-2) | 95 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.6 | mi/h |
| Average travel speed, ATS | 51.9 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 153 | pc/h |
| Highest directional split proportion (note-2) | 87 | |
| Base percent time-spent-following, BPTSF | 12.6 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 32.2 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.05 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 30 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 106 | veh-mi |
| Peak 15-min total travel time, TT15 | 0.6 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 143 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 178 | pc/h |
| Highest directional split proportion (note-2) | 101 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.7 | mi/h |
| Average travel speed, ATS | 51.7 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 165 | pc/h |
| Highest directional split proportion (note-2) | 94 | |
| Base percent time-spent-following, BPTSF | 13.5 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 33.1 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 459 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1616 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.9 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 1/24/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 133 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 166 | pc/h |
| Highest directional split proportion (note-2) | 95 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.6 | mi/h |
| Average travel speed, ATS | 51.9 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 153 | pc/h |
| Highest directional split proportion (note-2) | 87 | |
| Base percent time-spent-following, BPTSF | 12.6 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 32.2 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.05 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 427 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1503 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.2 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

# APPENDIX F

# PROJECT INFORMATION

PROJECT DESCRIPTION

ST. ADELAIDE CATHOLIC CHURCH OPERATIONAL CHARACTERISTICS

This 5.13 acre site is to be used for the new location of the St. Adelaide Catholic Church. There will be three buildings, built over three phases. Water and sewer service are provided by the County of San Diego. Access is by Sheridan Road.

Total proposed building area is 22,804 square feet (including trash enclosure) plus 2,421 covered arcade patio ~~and lobby~~. Amenities include 136 parking spaces, a 10,000 square foot playground, ~~outdoor barbeque~~ and extensive landscaping.

Phase I: MULTI-PURPOSE ROOM ~~MEETING HALL~~/WORSHIP SPACE

The first phase will include the total infrastructure, parking (136 spaces), landscaping, water/sewer hookups and electrical power. It will also include the construction of the one story 5,656 square foot multi-purpose room ~~meeting hall~~, a 1,786 square foot covered arcade and a 180 square foot trash enclosure. The multi-purpose room ~~meeting hall~~ will be large enough to serve as a temporary worship space as well as to function as a ~~multi-purpose room~~ meeting hall. It will include a kitchenette, a small office, storage for tables and chairs, toilets, janitor and electrical service room. ~~An outdoor barbeque area will be provided.~~ Barbecues will be provided in conjunction with the kitchenette. Outdoor dining is not contemplated.
There will be one Mass in the multi-use room on Saturday evening and one Mass in the multi-use room on Sunday morning. ~~Saturday evening will generate 40 cars trips and 65 people, between 4:30 p.m. and 7 p.m.~~ The largest gathering will be 250 people Sunday morning between 9:30 a.m. noon which will generate a parking demand for approximately 86 cars. ~~230 people between 9:30 a.m. and noon~~. This is based upon a survey of vehicle occupancy indicating 2.9 persons per vehicle. ~~Once a month Sept-June there will be an afternoon function on Sunday that will extend the hours until 3 p.m. and generate an additional 50 cars and 75 people after the Mass.~~

If the use of the church or the parking approaches capacity additional masses will be scheduled such that the parking and occupancy of the building stay within the designed capacity.

In addition there will be five weekdays when the multi-use room ~~it~~ will be used for Mass on our Holy Days of Obligation. ~~Christmas, Thanksgiving and First Friday Mass will also add to the use.~~ These additional masses will ~~primarily~~ be in the morning except for First Friday mass in the evening ~~and only one or two masses, not four. First Friday Mass is in the evening~~. The building will be used from 4:30 pm-7:30 pm on that day. This will

involve around 100 people. These Masses will be transferred to the Sanctuary upon its construction.

Once a month Saturday events may be planned for fundraisers, gatherings and presentations. A fundraiser may generate ~~250-350~~ approximately125-175 people ~~attending~~. These events will generate a parking demand for approximately 88 vehicles based upon a vehicle occupancy of 2 per vehicle. ~~Education~~ Catechism classes will be held ~~on Sundays as well as~~ once a week during the school year in the evening, usually Wednesdays. In addition on the first Tuesday of each month there is an evening meeting from 6 p.m. until 8:30 p.m. ~~These are small gatherings with less than 100 people attending.~~

The meeting hall will be 25' 11" tall. The exterior will be off white or beige stucco. The roofing material will be muted red terracotta tile and the trellis will be stained brown.

Phase II: NEW SANCTUARY

The second phase, ~~the~~ construction and use of a new 4,809 square foot sanctuary and 635 square foot covered lobby, will be within five years of the completion of the first phase. This building will be the main worship site. It will have seating for approximately ~~+/-~~ 300 people and will include all of the necessary elements of a Catholic church: Altar, presider area, ambo, vesting room, lobby, sacristy, toilets, offices, counseling rooms and a sound/lighting room.

There will be one Mass Saturday evening between 4:30 p.m. and 7 p.m. and ~~one~~ two ~~Mass~~ on Sunday morning~~. Saturday evening will generate 100 car trips and 175 people~~, ~~between 4:30 p.m. and 7 p.m.~~ ~~Sunday morning~~ between 9:30 and noon. ~~will generate~~ ~~150 cars and~~ ~~270~~ ~~people between 9:30 and noon .~~ ~~The same once-a-month function will generate an additional 75 cars and 150 people after the Mass.~~ The occupancy of 300 people will generate a parking demand for approximately 103 vehicles, based upon a vehicle occupancy of 2.9 persons per vehicle.

~~Easter and Christmas will generate an additional 200 cars and 450 people between the two Masses. It may be necessary to celebrate an additional Mass on Sunday morning at 8:30, which will distribute the same number of people among three Masses instead of two.~~

There will be catechism classes on Wednesday evenings during the school year that will generate approximately 60 car trips and 80 people, including students and teachers. Once a month Saturday events may be planned for fundraisers, gatherings and presentations. A fundraiser may generate approximately125-175 people . These events will generate a parking demand for approximately 88 vehicles based upon a vehicle occupancy of 2 per vehicle.

If the use of the church or the parking approaches capacity additional masses will be scheduled such that the parking and occupancy of the building stay within the designed capacity.

~~As the community grows and needs increase it may be necessary to assign a full time pastor to this community. This would increase the daily use of the facility with a daily mass either in the morning or the evening. Probably no more than 100 people would attend this Mass. It would also increase the daily use of the offices for counseling, record keeping, etc.; most likely no more than 10-15 trips a day. This number will increase as the population increases.~~

The height to the ridge of the roof will be 30' 10". The height to the top of the steeple will be 41'. The height to the top of the cross atop the steeple will be 47' 10". The construction materials and color will be the same as the multi purpose hall.

PHASE III: EDUCATION BUILDING

The third phase will be the building of a 12,159 square foot school facility. This will be built after the sanctuary, probably within ten years of the start of construction. This will be an elementary school, K-6th. It will also be one-story building similar to the sanctuary. The school structure will include administration, teacher offices, lounge, toilets and storage, classrooms, janitorial and electrical rooms.

There will be nine classrooms of 25 students each. A turf play yard of 10,000 square feet is included. The use will be the normal school year of September-June and will create approximately ~~275~~ 270~~+/-~~ people visits a day. Normal school hours will cover from 7 a.m. until 5 p.m. with parent/teacher meetings, assemblies, sporting events and some after school activities extending the hours into the evenings. The required yard space, security, first aid and support structures will all be a part of this phase. The school day will include a 40-minute outdoor recess period in the morning, a 40-minute recess period in the afternoon and a one-hour lunch period. The recess periods will be split such that only half of the students will be at recess at any one time,

The phase III parking demands will be devided between the weekend church services and weekday school requirements. The greatest phase III parking demands will occur during the weekend church services of up to 103 vehicles based upon a maximum attendance of 300 people as described under phase II. The weekday school parking requirements are estimated at approximately 30 parking spaces based upon the estimated number of teachers, staff, and volunteers.

The timing of the school construction will depend upon the demand for it and the finances available to pay for not only the construction costs but also the ongoing administration and upkeep.

The height of the school building will be 21' 10". The construction materials and colors will be the same as the other structures.

~~The Site~~ THE SITE

The subject property is a 5.13-acre site at the northeast corner of the intersection of Custer Road and Sheridan Road in the Campo Valley, just east of SR94 and the old San Diego & Arizona Eastern Railroad line.

The property shows obvious signs of relatively recent use shown by building foundations and debris. ~~The dominant vegetation is chaparral~~. A County of San Diego sewer line transects the property.

The site has been graded in the past, as can be seen from the topo map generated for this development. A slope analysis has been provided. There are no Resource Protection Ordinance "steep slopes" on the site. The property slopes gently from the southeast, elevation 2639 msl, to the northwest elevation 2594' msl.

Mechanical Equipment

Mechanical equipment consisting of ground mounted heating/cooling units will be provided. The equipment will be screened and enclosed behind a masonry wall finished to match the building. Heights for the masonry enclosures are described in the acoustical study, ISE Report #05-127. A solid metal gate shall be installed with each bank of mechanical equipment. The proposed equipment consists of:

| PHASE | EQUIPMENT |
|---|---|
| I. Multi-purpose Hall | One twenty-ton condensing unit and one 7.5-ton condensing unit or two ten-ton condensing units and one 7.5 ton condensing unit. |
| II. Sanctuary | Two 8-ton condensing units and one 6.5-ton condensing unit. |
| III. School | Nine four-ton condensing units and one 10-ton condensing unit. |

PARKING SUMMARY

| PROJECT PHASE | MAXIMUM ESTIMATED PARKING DEMAND BASED ON EXISTING VEHICLE OCCUPANCE (1) |
|---|---|
| Phase I | |
| Weekend Mass (Sat & Sun) | 86 Parking Spaces |
| Weekend Fundraiser (once a month) | 88 Parking Spaces (Max) |
| Weekday Evening Catechism Classes (once a week) | 60 Parking Spaces |
| Phase II | |
| Weekend Mass (Sat & Sun) | 103 Parking Spaces (Max) |
| Weekend Fundraiser (once a month) | 88 Parking Spaces |
| Weekday Evening Catechism Classes (once a week) | 60 Parking Spaces |
| Phase III | |
| Weekend Mass (Sat & Sun) | 103 Parking Spaces (Max) |
| Weekend Fundraiser (once a month) | 88 Parking Spaces |
| Weekday Evening Catechism Classes (once a week) | 60 Parking Spaces |
| Weekday School | 30 Parking Spaces |

A vehicle occupancy of 2.9 is from actual Church records that document the number of people in each family and the number of vehicles used to attend service.

CHURCH PARKING OCCUPANCY DATA

St. Adelaide, Campo

| FAMILY # | # IN FAMILY | | # CAR TRIP | |
|---|---|---|---|---|
| | Adults | Children | | |
| #1 | 2 | | 1 | |
| 2 | 1 | | 1 | |
| 3 | 2 | 7 | 2 | |
| 4 | 2 | 1 | 1 | This is the first 40 of 85 |
| 5 | 2 | | 1 | registered families and is an |
| 6 | 2 | | 1 | educated guess of the number of |
| 7 | 2 | 3 | 1 | people per car trip on Sunday |
| 8 | 2 | | 1 | for Mass in Campo |
| 9 | 2 | | 1 | |
| 10 | 2 | 1 | 1 | Total # of people is 118 |
| 11 | 1 | | 1 | Total car trips is 41 |
| 12 | 1 | | 1 | Occupancy = people/cars |
| 13 | 2 | 4 | 1 | = 118/41 |
| 14 | 2 | 3 | 1 | = **2.9 people/car** |
| 15 | 1 | 3 | 1 | |
| 16 | 1 | | 1 | |

| | | | |
|---|---|---|---|
| 17 | 2 | 3 | 1 |
| 18 | 2 | | 1 |
| 19 | 2 | | 1 |
| 20 | 1 | | 1 |
| 21 | 2 | | 1 |
| 22 | 1 | 1 | 1 |
| 23 | 1 | | 1 |
| 24 | 2 | | 1 |
| 25 | 2 | 1 | 1 |
| 26 | 2 | | 1 |
| 27 | 1 | 1 | 1 |
| 28 | 2 | 3 | 1 |
| 29 | 1 | | 1 |
| 30 | 2 | | 1 |
| 31 | 2 | 1 | 1 |
| 32 | 2 | 1 | 1 |
| 33 | 2 | | 1 |
| 34 | 2 | | 1 |
| 35 | 1 | 4 | 1 |
| 36 | 2 | 3 | 1 |
| 37 | 2 | 1 | 1 |
| 38 | 2 | 4 | 1 |
| 39 | 2 | | 1 |
| 40 | 2 | 4 | 1 |

~~The Vicinity~~ THE VICINITY

The immediate vicinity includes scattered residential uses on large lots and a new subdivision, County Tract 4554, of several hundred new homes on urban sized lots. Additionally, the neighborhood includes a sizeable INS facility, and Rancho del Campo, and a small commercial center at Cameron's Corners, and the well known train museum and a truck museum. The area, during WW2 had ~~included~~ a prisoner of war camp housing Italians, and earlier, a US Army encampment.

9-12-06

**City of San Diego** **South Bay** **Imperial County**

Click on a parish or mission in your area for location, mass times and other information. C
[BACK] key on your browser to return to Parishes & Missions Search page.

# Diocesan Schools

From: http://www.diocese-sdiego.org/set.asp?link=directory.htm&in=Institutions

---

Estimated Travel Distance and Time from Jamul, CA.

School: **Holy Trinity School**
Principal: **Ms. Barbara Picco**
Grades: **(Pre-8)**
Address: **509 Ballard Street, El Cajon 92019**
Phone: **(619) 444-7529**
Fax: **(619) 444-3721**

12 miles / 27 minutes

School: **Santa Sophia Academy**
Principal: **Mrs. Karen Laaperi**
Grades: **(Pre-8)**
Address: **9806 San Juan Street, Spring Valley 91977**
Phone: **(619) 463-0488**
Fax: **(619) 668-5469**

12 miles / 27 minutes

School: **St. Kieran School**
Principal: **Mr. Peter Harris**
Grades: **(Pre-8)**
Address: **1347 Camillo Way, El Cajon 92021**
Phone: **(619) 588-6398**
Fax: **(619) 588-6382**

13 miles / 31 minutes

School: **St. Martin of Tours Academy**
Principal: **Ms. Nancy Ryan**
Grades: **(Pre-8)**
Address: **7708 El Cajon Blvd., La Mesa 91941**
Phone: **(619) 466-3241**
Fax: **(619) 466-0285**

15 miles / 31 minutes

School: **Our Lady of Grace School**
Principal: **Mrs. Susan Hause**
Grades: **(K-8)**
Address: **2766 Navajo Road, El Cajon 92020**
Phone: **(619) 466-0055**
Fax: **(619) 466-8994**

17 miles / 30 minutes

Estimated travel and distance from on-line tools


St. Adelaide Catholic Church Traffic Study Appendix Page 49 of 172

# APPENDIX G

# ITE 7TH EDITION TRIP GENERATION CALCUALTIONS

Summary of Trip Generation Calculation
For 270 Students of Private School (K-12)
March 28, 2005

| | Average Rate | Standard Deviation | Adjustment Factor | Driveway Volume |
|---|---|---|---|---|
| Avg. Weekday 2-Way Volume | 2.48 | 0.00 | 1.00 | 670 |
| 7-9 AM Peak Hour Enter | 0.48 | 0.00 | 1.00 | 130 |
| 7-9 AM Peak Hour Exit | 0.31 | 0.00 | 1.00 | 84 |
| 7-9 AM Peak Hour Total | 0.79 | 0.90 | 1.00 | 213 |
| 4-6 PM Peak Hour Enter | 0.07 | 0.00 | 1.00 | 19 |
| 4-6 PM Peak Hour Exit | 0.10 | 0.00 | 1.00 | 27 |
| 4-6 PM Peak Hour Total | 0.17 | 0.41 | 1.00 | 46 |
| AM Pk Hr, Generator, Enter | 0.48 | 0.00 | 1.00 | 130 |
| AM Pk Hr, Generator, Exit | 0.31 | 0.00 | 1.00 | 84 |
| AM Pk Hr, Generator, Total | 0.79 | 0.90 | 1.00 | 213 |
| PM Pk Hr, Generator, Enter | 0.23 | 0.00 | 1.00 | 62 |
| PM Pk Hr, Generator, Exit | 0.32 | 0.00 | 1.00 | 86 |
| PM Pk Hr, Generator, Total | 0.55 | 0.74 | 1.00 | 149 |
| Saturday 2-Way Volume | 0.00 | 0.00 | 1.00 | 0 |
| Saturday Peak Hour Enter | 0.00 | 0.00 | 1.00 | 0 |
| Saturday Peak Hour Exit | 0.00 | 0.00 | 1.00 | 0 |
| Saturday Peak Hour Total | 0.00 | 0.00 | 1.00 | 0 |
| Sunday 2-Way Volume | 0.00 | 0.00 | 1.00 | 0 |
| Sunday Peak Hour Enter | 0.00 | 0.00 | 1.00 | 0 |
| Sunday Peak Hour Exit | 0.00 | 0.00 | 1.00 | 0 |
| Sunday Peak Hour Total | 0.00 | 0.00 | 1.00 | 0 |

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

# APPENDIX H

# EXISTING + PROJECT INTERSECTION LEVEL OF SERVICE CALCUALTIONS

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 2 | 0 | 1 | 21 | 1 | 32 | 2 | 41 | 41 | 47 | 33 | 2 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 2 | 0 | 1 | 22 | 1 | 34 | 3 | 43 | 43 | 49 | 35 | 2 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 240 | 227 | 36 | 207 | 207 | 65 | 37 | | | 86 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 240 | 227 | 36 | 207 | 207 | 65 | 37 | | | 86 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 100 | 100 | 100 | 97 | 100 | 97 | 100 | | | 97 | | |
| cM capacity (veh/h) | 671 | 649 | 1037 | 730 | 666 | 999 | 1574 | | | 1510 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 3 | 57 | 89 | 86 |
| Volume Left | 2 | 22 | 3 | 49 |
| Volume Right | 1 | 34 | 43 | 2 |
| cSH | 760 | 867 | 1574 | 1510 |
| Volume to Capacity | 0.00 | 0.07 | 0.00 | 0.03 |
| Queue Length 95th (ft) | 0 | 5 | 0 | 3 |
| Control Delay (s) | 9.8 | 9.4 | 0.3 | 4.4 |
| Lane LOS | A | A | A | A |
| Approach Delay (s) | 9.8 | 9.4 | 0.3 | 4.4 |
| Approach LOS | A | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 4.1 | | |
| Intersection Capacity Utilization | 21.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 50 | 49 | 29 | 42 | 27 | 15 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 53 | 52 | 31 | 44 | 28 | 16 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 104 | | 184 | 78 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 104 | | 184 | 78 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 96 | 98 |
| cM capacity (veh/h) | | | 1487 | | 789 | 982 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 104 | 75 | 44 |
| Volume Left | 0 | 31 | 28 |
| Volume Right | 52 | 0 | 16 |
| cSH | 1700 | 1487 | 849 |
| Volume to Capacity | 0.06 | 0.02 | 0.05 |
| Queue Length 95th (ft) | 0 | 2 | 4 |
| Control Delay (s) | 0.0 | 3.1 | 9.5 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 3.1 | 9.5 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 2.9 | |
| Intersection Capacity Utilization | | 20.5% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 39 | 47 | 16 | 60 | 73 | 20 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 41 | 49 | 17 | 63 | 77 | 21 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 223 | 48 | | | 80 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 223 | 48 | | | 80 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 94 | 95 | | | 95 | |
| cM capacity (veh/h) | 726 | 1020 | | | 1518 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 91 | 80 | 98 |
| Volume Left | 41 | 0 | 77 |
| Volume Right | 49 | 63 | 0 |
| cSH | 862 | 1700 | 1518 |
| Volume to Capacity | 0.11 | 0.05 | 0.05 |
| Queue Length 95th (ft) | 9 | 0 | 4 |
| Control Delay (s) | 9.7 | 0.0 | 6.0 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.7 | 0.0 | 6.0 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.4 | | |
| Intersection Capacity Utilization | 24.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 11 | 8 | 1 | 19 | 11 | 43 | 3 | 29 | 6 | 35 | 37 | 8 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 12 | 8 | 1 | 20 | 12 | 45 | 4 | 31 | 6 | 37 | 39 | 8 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 210 | 162 | 43 | 164 | 163 | 34 | 47 | | | 37 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 210 | 162 | 43 | 164 | 163 | 34 | 47 | | | 37 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 98 | 99 | 100 | 97 | 98 | 96 | 100 | | | 98 | | |
| cM capacity (veh/h) | 692 | 711 | 1027 | 777 | 711 | 1040 | 1560 | | | 1574 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 21 | 77 | 41 | 84 |
| Volume Left | 12 | 20 | 4 | 37 |
| Volume Right | 1 | 45 | 6 | 8 |
| cSH | 711 | 898 | 1560 | 1574 |
| Volume to Capacity | 0.03 | 0.09 | 0.00 | 0.02 |
| Queue Length 95th (ft) | 2 | 7 | 0 | 2 |
| Control Delay (s) | 10.2 | 9.4 | 0.8 | 3.3 |
| Lane LOS | B | A | A | A |
| Approach Delay (s) | 10.2 | 9.4 | 0.8 | 3.3 |
| Approach LOS | B | A | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 5.6 | | | |
| Intersection Capacity Utilization | 22.2% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 63 | 13 | 11 | 44 | 27 | 15 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 66 | 14 | 12 | 46 | 28 | 16 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 80 | | 143 | 73 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 80 | | 143 | 73 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 97 | 98 |
| cM capacity (veh/h) | | | 1518 | | 844 | 989 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 80 | 58 | 44 |
| Volume Left | 0 | 12 | 28 |
| Volume Right | 14 | 0 | 16 |
| cSH | 1700 | 1518 | 890 |
| Volume to Capacity | 0.05 | 0.01 | 0.05 |
| Queue Length 95th (ft) | 0 | 1 | 4 |
| Control Delay (s) | 0.0 | 1.5 | 9.3 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 1.5 | 9.3 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 2.7 | |
| Intersection Capacity Utilization | | 19.6% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 14 | 17 | 15 | 10 | 13 | 21 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 15 | 18 | 16 | 11 | 14 | 22 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 71 | 21 | | | 26 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 71 | 21 | | | 26 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 98 | 98 | | | 99 | |
| cM capacity (veh/h) | 926 | 1056 | | | 1588 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 33 | 26 | 36 |
| Volume Left | 15 | 0 | 14 |
| Volume Right | 18 | 11 | 0 |
| cSH | 993 | 1700 | 1588 |
| Volume to Capacity | 0.03 | 0.02 | 0.01 |
| Queue Length 95th (ft) | 3 | 0 | 1 |
| Control Delay (s) | 8.7 | 0.0 | 2.8 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.7 | 0.0 | 2.8 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 4.1 | | |
| Intersection Capacity Utilization | 18.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# APPENDIX I

# EXISTING + PROJECT TWO-LANE HIGHWAY (HCM) CALCUALTIONS

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing+Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 187 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 363 | pc/h |
| Highest directional split proportion (note-2) | 243 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.3 | mi/h |
| Average travel speed, ATS | 47.7 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 307 | pc/h |
| Highest directional split proportion (note-2) | 206 | |
| Base percent time-spent-following, BPTSF | 23.7 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 23.9 | |
| Percent time-spent-following, PTSF | 47.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.11 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 627 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2207 | veh-mi |
| Peak 15-min total travel time, TT15 | 13.2 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing+Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 182 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 354 | pc/h |
| Highest directional split proportion (note-2) | 237 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.3 | mi/h |
| Average travel speed, ATS | 47.8 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 299 | pc/h |
| Highest directional split proportion (note-2) | 200 | |
| Base percent time-spent-following, BPTSF | 23.1 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 23.9 | |
| Percent time-spent-following, PTSF | 47.1 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.11 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 610 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2148 | veh-mi |
| Peak 15-min total travel time, TT15 | 12.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 138 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 172 | pc/h |
| Highest directional split proportion (note-2) | 115 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.6 | mi/h |
| Average travel speed, ATS | 51.8 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 159 | pc/h |
| Highest directional split proportion (note-2) | 107 | |
| Base percent time-spent-following, BPTSF | 13.0 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.7 | |
| Percent time-spent-following, PTSF | 34.8 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.05 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 55 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 193 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 171 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 213 | pc/h |
| Highest directional split proportion (note-2) | 143 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.0 | mi/h |
| Average travel speed, ATS | 51.2 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 197 | pc/h |
| Highest directional split proportion (note-2) | 132 | |
| Base percent time-spent-following, BPTSF | 15.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.4 | |
| Percent time-spent-following, PTSF | 37.3 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 68 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 239 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 187 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 233 | pc/h |
| Highest directional split proportion (note-2) | 133 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.1 | mi/h |
| Average travel speed, ATS | 50.9 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 215 | pc/h |
| Highest directional split proportion (note-2) | 123 | |
| Base percent time-spent-following, BPTSF | 17.2 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 36.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 43 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 150 | veh-mi |
| Peak 15-min total travel time, TT15 | 0.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing+Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 144 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 180 | pc/h |
| Highest directional split proportion (note-2) | 103 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.7 | mi/h |
| Average travel speed, ATS | 51.7 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 166 | pc/h |
| Highest directional split proportion (note-2) | 95 | |
| Base percent time-spent-following, BPTSF | 13.6 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 33.1 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 33 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 115 | veh-mi |
| Peak 15-min total travel time, TT15 | 0.6 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 165 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 206 | pc/h |
| Highest directional split proportion (note-2) | 117 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 51.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 190 | pc/h |
| Highest directional split proportion (note-2) | 108 | |
| Base percent time-spent-following, BPTSF | 15.4 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 34.9 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 530 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1865 | veh-mi |
| Peak 15-min total travel time, TT15 | 10.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 138 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 172 | pc/h |
| Highest directional split proportion (note-2) | 98 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.6 | mi/h |
| Average travel speed, ATS | 51.8 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 159 | pc/h |
| Highest directional split proportion (note-2) | 91 | |
| Base percent time-spent-following, BPTSF | 13.0 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.6 | |
| Percent time-spent-following, PTSF | 32.6 | % |

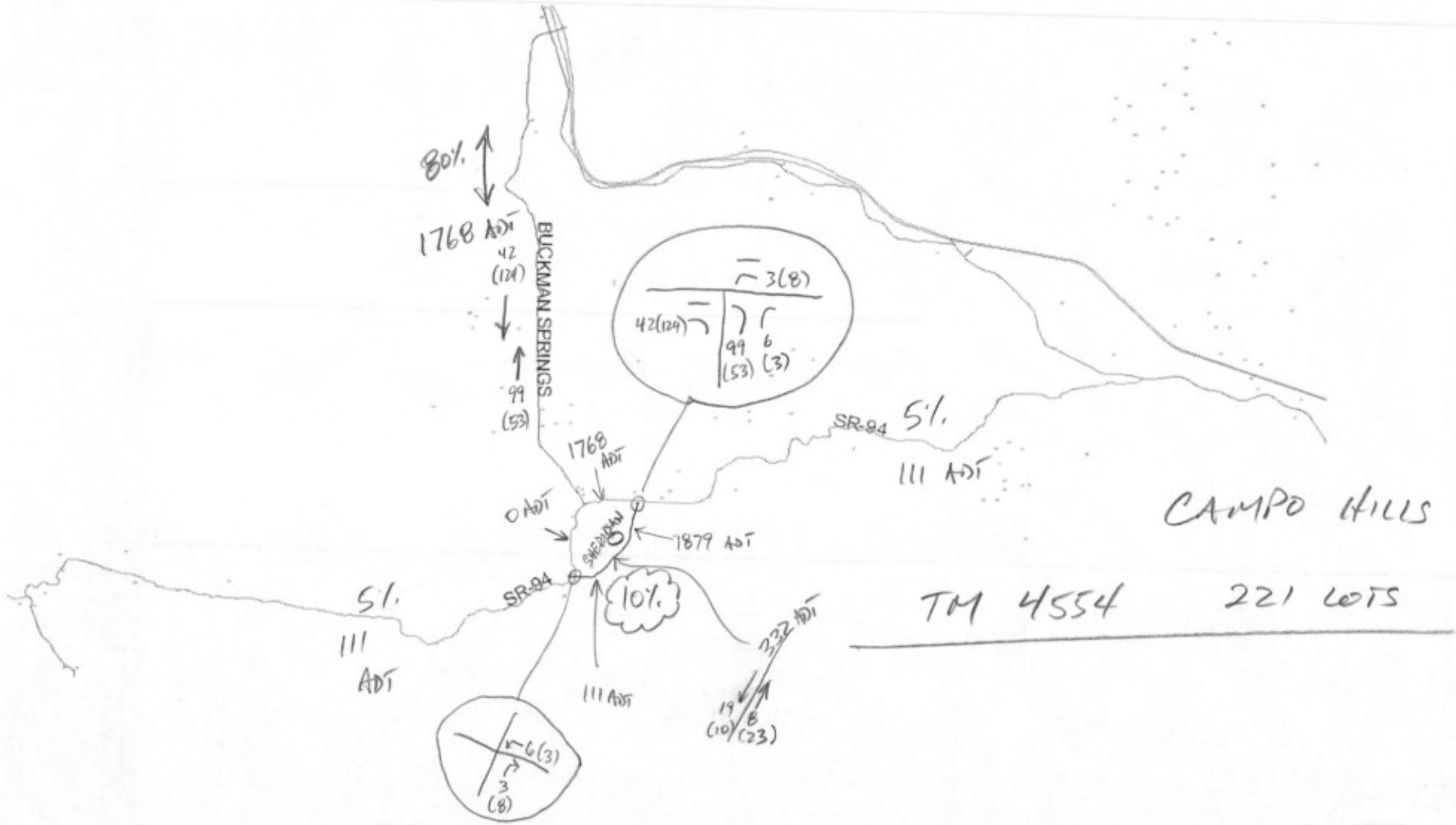
## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.05 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 443 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1559 | veh-mi |
| Peak 15-min total travel time, TT15 | 8.5 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

# APPENDIX J

# CUMULATIVE PROJECT INFORMATION




| Proposed Land Use | | Rate | Size & Units | | ADT | % | Split | | AM IN | AM OUT | % | Split | | PM IN | PM OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Residential | 10 /DU | 221 | DU | **2,210** | 8% | 0.3 | 0.7 | **53** | **124** | 10% | 0.7 | 0.3 | **155** | **66** |

Source: SANDAG *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region,* April 2002.

Planning Area: Mountain Empire Case Number: TM 5417/ ER 04-21-007

# CUMULATIVE TRAFFIC DATA SHEET

The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| Date Prepared: 2/8/05 (Today's date) | Prepared by: Sami Raya (Print your name (*and* firm name, if applicable)) | 858-694-3733 (Phone #) |
|---|---|---|
| Project Name or Address: Vaughan TM; 30069 Canvasback Drive | | |
| Community Planning Area: Mountain Empire | | |
| Thomas Brother's page and location: 1297-G5; Easternmost terminal end Canvasback Drive | | |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): TM 5417/ ER04-21-007 | | |
| Assessor Parcel Number(s): 606-131-15; 606-141-23 | | |
| Residential Lots: 13 Lots | Commercial Square Footage: ____ s.f | Other?(explain below) |
| Project Description - Please summarize type of project – residential, commercial, school, church, industrial, etc. (If *residential*, number of lots and type of residential – apartment, condo, townhome, single-family; if *commercial*, number of square feet of building space and on-site parking; If *school, church* or *other non-traditional* traffic generator, please describe the project's enrollment/capacity/attendance or any other characteristic in which traffic generation can be derived)<br><br>The project proposes a major subdivision of 81.24 acres (gross) into 13 lots that will measure between 5 and 8.98 acres (net). The lots will be developed with single-family residences. | | |
| Public Roadway(s) Providing direct access to the project site<br>(This includes *all* roadways that the future occupants would use to directly enter the site.)<br>From Buckman Springs Road, to Oak Drive, to White Goose Road, to Canvasback Drive. | | |
| Project Traffic Consultant: N/A | Final Traffic Report Avail. (if yes, please check) ☐ | |

As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**

Planning Area: Mountain Empire

Case Number: TPM 20755

# CUMULATIVE TRAFFIC DATA SHEET

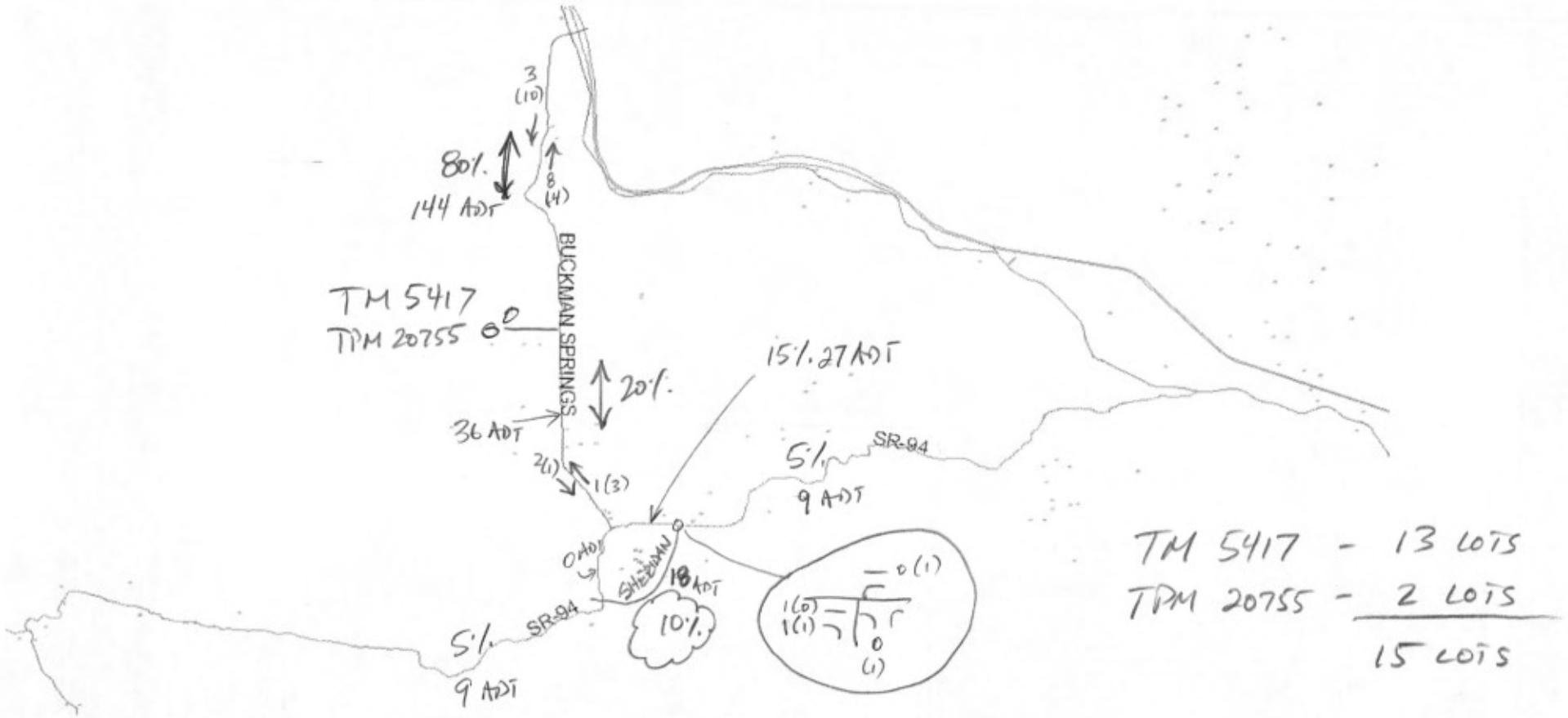
The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| Date Prepared: 11/10/04 (Today's date) | Prepared by: Jarrett Ramaiya/DPLU (Print your name (*and* firm name, if applicable)) | (858) 694-3015 (Phone #) |
|---|---|---|
| Project Name or Address: McClintock TPM/Oak Drive at Basso Road | | |
| Community Planning Area: Mountain Empire CPG | | |
| Thomas Brother's page and location: 1297 5/F | | |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): TPM 20755 | | |
| Assessor Parcel Number(s): 606-140-29 | | |
| Residential Lots: 2 (proposed) Lots | Commercial Square Footage: _____s.f | Other?(explain below) |
| Project Description - Please summarize type of project – residential, commercial, school, church, industrial, etc. (If *residential*, number of lots and type of residential – apartment, condo, townhome, single-family; if *commercial*, number of square feet of building space and on-site parking; If *school, church* or *other non-traditional* traffic generator, please describe the project's enrollment/capacity/attendance or any other characteristic in which traffic generation can be derived) The project proposes a minor subdivision of 10.0 gross acres into 2 residential parcels of 4.15 ac and 4.56 acres net. The subdivision is located on Basso Road in the Campo/Lake Morena Community. Regional Category: (RDA) Rural Development Area, Land Use Designator: (18) Multiple Rural Use, Planning Area: Mountain Empire, Planning Group: Campo/Lake Morena Sponsor Group, Use Regulation: S92( 4 acre minimum lot size). | | |
| Public Roadway(s) Providing direct access to the project site (This includes *all* roadways that the future occupants would use to directly enter the site.) Oak Drive & Basso Road | | |
| Project Traffic Consultant: Not yet assigned | Final Traffic Report Avail. (if yes, please check)☐ | |

As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**




| Proposed Land Use | Rate | Size & Units | ADT | % | Split | | AM IN | AM OUT | % | Split | | PM IN | PM OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Residential | 12 /DU | 15 DU | **180** | 8% | 0.3 | 0.7 | **4** | **10** | 10% | 0.7 | 0.3 | **13** | **5** |

Source: SANDAG *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002.

Planning Area: ~~Legacy Ranch~~ Campo - Mountain Empire

Case Number: TM5371

# CUMULATIVE TRAFFIC DATA SHEET

The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| | | | | |
|---|---|---|---|---|
| Date Prepared: November 16, 2004 (Today's date) | | Prepared by: Daniella Rosenberg (Print your name (*and* firm name, if applicable)) | | 858 694-3016 (Phone #) |
| Project Name or Address: Legacy Ranch Estates | | | | |
| Community Planning Area: Campo | | | | |
| **Thomas Brother's page and location**: Page 1298 F5 | | | | |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): TM 53071, ER 04-21-001 | | | | |
| Assessor Parcel Number(s): 606-180-04 | | | | |
| Residential Lots: __9__ Lots | Commercial Square Footage: _____s.f | | Other? | |
| Project Description - Please summarize type of project – residential, commercial, school, church, industrial, etc.<br>The proposed project consists of an nine-lot subdivision on approximately 79.23 acres and a remainder parcel of 80.77 acres. The entire ownership is 160.00 acres. | | | | |
| Public Roadway(s) Providing direct access to the project site<br>(This includes *all* roadways that the future occupants would use to directly enter the site.)<br>La Posta Road | | | | |
| Project Traffic Consultant: N/A | | Final Traffic Report Avail. ☐ | | |

As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**


| Proposed Land Use | Rate | Size & Units | ADT | % | Split | | AM IN | AM OUT | % | Split | | PM IN | PM OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Residential | 12 /DU | 9 DU | **108** | 8% | 0.3 | 0.7 | **3** | **6** | 10% | 0.7 | 0.3 | **8** | **3** |

Source: SANDAG *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region,* April 2002.

Planning Area: Mountain Empire CPA Case Number: **TPM 20882**

# CUMULATIVE TRAFFIC DATA SHEET

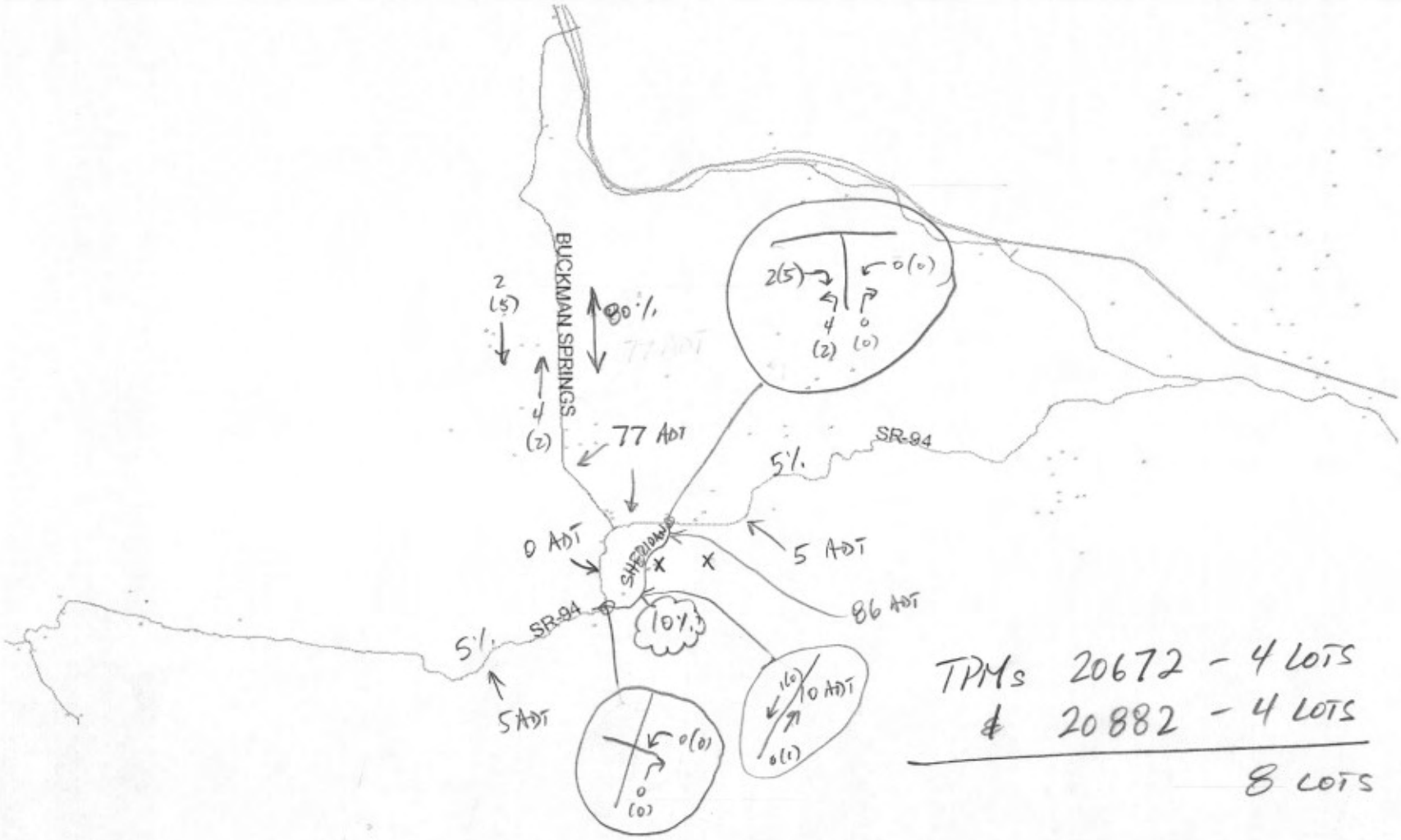
The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| Date Prepared: 11/2/04 (Today's date) | Prepared by: Alyssa Maxson, DPLU (Print your name (*and* firm name, if applicable)) | (858)694-3737 (Phone #) |
|---|---|---|
| Project Name or Address: Tortora TPM | | |
| Community Planning Area: Mountain Empire Community Planning Area | | |
| Thomas Brother's page and location: 1318 D/6 | | |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): TPM 20882; ER 04-21-002 | | |
| Assessor Parcel Number(s): 655-130-22-00 | | |
| Residential Lots: 4 Lots | Commercial Square Footage: ____s.f | Other?(explain below) |
| Project Description - Please summarize type of project – residential, commercial, school, church, industrial, etc. (If *residential*, number of lots and type of residential – apartment, condo, townhome, single-family; if *commercial*, number of square feet of building space and on-site parking; If *school, church* or *other non-traditional* traffic generator, please describe the project's enrollment/capacity/attendance or any other characteristic in which traffic generation can be derived) The proposed project is a subdivision of a parcel into four residential lots. A single-family residence currently exists on the project site and would remain with this project. Three additional single-family residential lots would be created. | | |
| Public Roadway(s) Providing direct access to the project site (This includes *all* roadways that the future occupants would use to directly enter the site.) Highway 94 to Meanwhile Ranch Road | | |
| Project Traffic Consultant: | Final Traffic Report Avail. (if yes, please check) ☐ | |

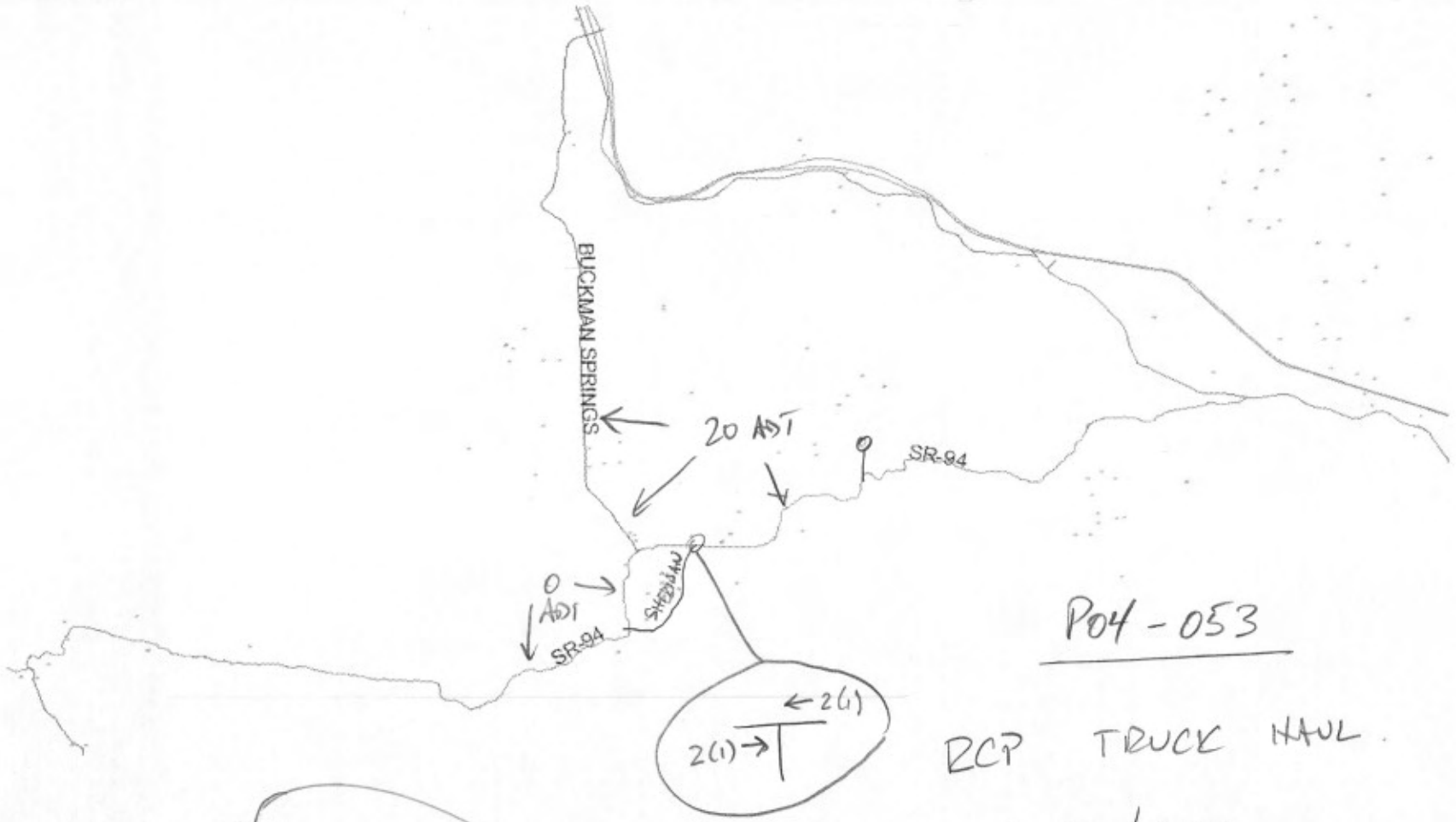
As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**




| Proposed Land Use | Rate | Size & Units | ADT | % | Split | | AM IN | AM OUT | % | Split | | PM IN | PM OUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Residential | 12 /DU | 8 DU | **96** | 8% | 0.3 | 0.7 | **2** | **5** | 10% | 0.7 | 0.3 | **7** | **3** |

Source: SANDAG *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region,* April 2002.


BUCKMAN SPRINGS
20 ADT
SR-94
0
ADT
SR-94
SHERMAN
2(1)
2(1)
P04 - 053
RCP TRUCK HAUL.
20 ADT / DAY
ASSUME HOURS OF OPERATION 8-5.
20 ADT / 9 HRS = 2.2 Vehicles / hr.
AM
IN OUT
2 1
PM
IN OUT
1 2

Planning Area: Mountain Empire / LAKE MORENA/CAMPO

Case Number: P04-053 RP04-004

# CUMULATIVE TRAFFIC DATA SHEET

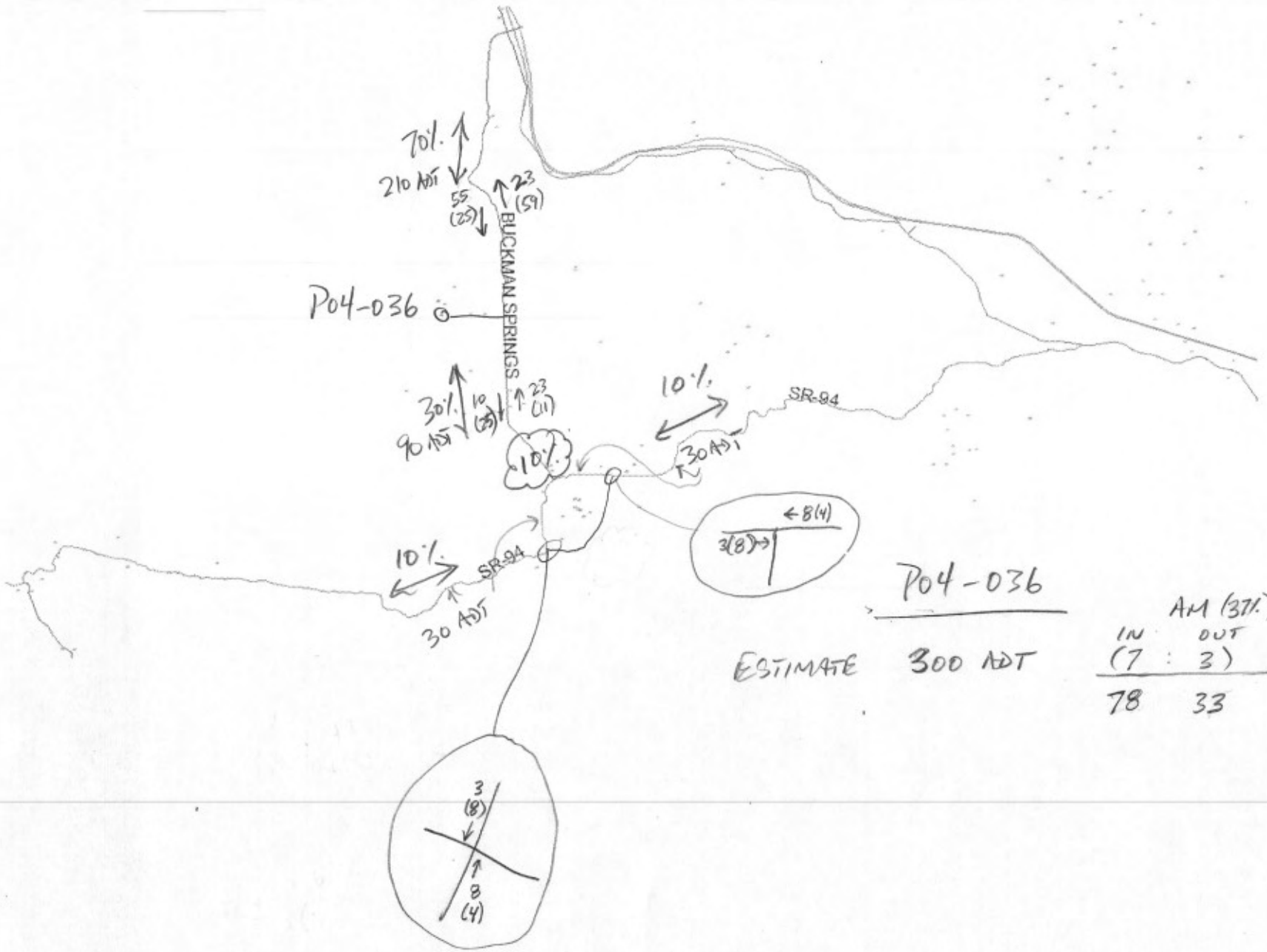
The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| | | | |
|---|---|---|---|
| Date Prepared: 1/5/05 (Today's date) | Prepared by: A. Maxson (Print your name (*and* firm name, if applicable)) | | x3737 (Phone #) |
| Project Name or Address: RCP - Circle F Ranch | | | |
| Community Planning Area: Mountain Empire | | | |
| Thomas Brother's page and location: 1298 H/6, J/6, G/7, H/7, J/7; 1318 H/1; J/1, H/2, J/2 | | | |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): P04-053, RP04-004; ER 04-21-003 | | | |
| Assessor Parcel Number(s): | | | |
| Residential Lots: ___ Lots | Commercial Square Footage: ___ s.f | Other? (explain below) | |
| Project Description - Please summarize type of project – residential, commercial, school, church, industrial, etc. (If *residential*, number of lots and type of residential – apartment, condo, townhome, single-family; if *commercial*, number of square feet of building space and on-site parking; If *school*, *church* or *other non-traditional* traffic generator, please describe the project's enrollment/capacity/attendance or any other characteristic in which traffic generation can be derived) Sand Extraction operation with approximately 20 haul trucks per day. (employee total not known at this time). | | | |
| Public Roadway(s) Providing direct access to the project site (This includes *all* roadways that the future occupants would use to directly enter the site.) SR 94 - Proposed Route is I-8 to Buckman Springs Rd to SR 94 | | | |
| Project Traffic Consultant: | | Final Traffic Report Avail. (if yes, please check) ☐ | |

As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**




P04-036

ESTIMATE 300 ADT

| | AM (37%) | | PM (40%) | |
|---|---|---|---|---|
| | IN | OUT | IN | OUT |
| | (7 | 3) | (3 | 7) |
| 78 | 33 | | 36 | 84 |

Planning Area: Mountain Empire Subregion · Case Number: P04-036

# CUMULATIVE TRAFFIC DATA SHEET

The following table has been compiled by County DPLU staff to assist in the preparation of cumulative traffic analysis for discretionary projects within the County of San Diego. The following information is requested by the County of San Diego for an interim use by traffic consultants while a public-interface of County of San Diego permit tracking and GIS applications is being programmed.

Please fill out all of the information below based on the case file pulled for cumulative analysis preparation. Once the form has been completed, County staff will provide you a photocopy of the form for your records and place the original in the "Cumulative Traffic Data Reference Binder" for inclusion into a binder for future reference.

| | | | | |
|---|---|---|---|---|
| Date Prepared: | 11/8/2004 | Prepared by: | ~~David Sibbet~~ BOB FOERSTER | (858) 694-~~3680~~ 3856 |
| | Today's date | | Print your name (*and* firm name, if applicable) | Phone # |

| |
|---|
| Project Name or Address: A Children's Village, 1880 Lake Morena Drive |
| Community Planning Area: Mountain Empire Subregion |
| Thomas Brother's page and location: 1317 G2, in between Buckman Springs and Oak Drive. |
| Case Numbers (e.g., TM, TPM, MUP, STP, ER, etc.): P04-036 |
| Assessor Parcel Numbers: 607-10028 |

| Residential Lots: | Commercial Square Footage: | Other? |
|---|---|---|
| 0 Lots | 0 s.f. | Civic Use |

Project Description – The Major Use Permit is for three uses on the site: a group care facility for 200 foster care children, an on-site school (K through 12), and a interdenominational church. There will also be several accessory uses on the property, including: a water reclamation facility, a reservoir, a water tank, parking lots, pasture land, stables, barns, corrals, the bunk house, a caretakers house, a guest house, a basketball court, a tennis court, a / soccer field, and a baseball field.

The housing units will be located in five groups around the perimeter of the northern side of the property. Each group of units will include 5 separate dwelling units each. Each unit will house up to 8 foster children and a live-in married couple. A 10-space parking lot will be constructed near every group of housing units. The live-in couple's biological children may also stay at the facility. The director and his family along with various guests will stay on the property at any given time. A total occupancy of 270 people is anticipated.

The school will cover approximately the central 7 acres of the property. The school will accommodate the entire children population. 15 teachers and 5 support staff will work at the school. Recreational areas, courts and fields will be located south of the school. All the proposed buildings will use a rural ranch-like architectural design to maintain the rural character of the area. The interdenominational chapel near the main entrance of the property will serve on-site and the greater Moreno community. The seating capacity of the chapel will be 424 persons. The chapel will be used for weekly religious services and occasional weddings.

Three gated entrances off Lake Moreno Drive will provide adequate everyday and emergency access. A total of 122 parking spaces will be available on the property and provide adequate parking for all the uses.

Planning Area: Mountain Empire Subregion Case Number: P04-036

| |
|---|
| Public Roadway(s) Providing direct access to the project site<br>Access will be provided via Lake Morena Drive |
| Project Traffic Consultant: Darnell and Assocs. Final Traffic Report Avail. (if yes, please check)☐ |

As noted above, this information, as well as that information received from other consultants completing cumulative traffic analysis, will be available for future reference at the Project Processing Counter in the *Cumulative Traffic Data Reference Binder*.

**Please return the master to Project Processing Staff for insertion into the Cumulative Traffic Data Reference Binder.**

# APPENDIX K

# EXISTING + PROJECT + CUMULATIVE INTERSECTION LEVEL OF SERVICE CALCUALTIONS

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 2 | 0 | 1 | 27 | 1 | 32 | 2 | 49 | 44 | 47 | 36 | 2 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 2 | 0 | 1 | 28 | 1 | 34 | 4 | 52 | 46 | 74 | 38 | 2 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 305 | 294 | 39 | 272 | 272 | 75 | 40 | | | 98 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 305 | 294 | 39 | 272 | 272 | 75 | 40 | | | 98 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 100 | 100 | 100 | 96 | 100 | 97 | 100 | | | 95 | | |
| cM capacity (veh/h) | 600 | 585 | 1033 | 653 | 602 | 987 | 1570 | | | 1495 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 3 | 63 | 102 | 114 |
| Volume Left | 2 | 28 | 4 | 74 |
| Volume Right | 1 | 34 | 46 | 2 |
| cSH | 697 | 795 | 1570 | 1495 |
| Volume to Capacity | 0.00 | 0.08 | 0.00 | 0.05 |
| Queue Length 95th (ft) | 0 | 6 | 0 | 4 |
| Control Delay (s) | 10.2 | 9.9 | 0.3 | 5.0 |
| Lane LOS | B | A | A | A |
| Approach Delay (s) | 10.2 | 9.9 | 0.3 | 5.0 |
| Approach LOS | B | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 4.5 | | |
| Intersection Capacity Utilization | 22.9% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 58 | 94 | 29 | 57 | 130 | 22 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 61 | 99 | 46 | 60 | 137 | 23 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 160 | | 262 | 111 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 160 | | 262 | 111 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 97 | | 81 | 98 |
| cM capacity (veh/h) | | | 1419 | | 703 | 943 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 160 | 106 | 160 |
| Volume Left | 0 | 46 | 137 |
| Volume Right | 99 | 0 | 23 |
| cSH | 1700 | 1419 | 730 |
| Volume to Capacity | 0.09 | 0.03 | 0.22 |
| Queue Length 95th (ft) | 0 | 2 | 21 |
| Control Delay (s) | 0.0 | 3.4 | 11.3 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 3.4 | 11.3 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.1 | | |
| Intersection Capacity Utilization | 33.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 39 | 47 | 25 | 60 | 73 | 41 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 41 | 49 | 26 | 63 | 154 | 43 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 408 | 58 | | | 89 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 408 | 58 | | | 89 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 92 | 95 | | | 90 | |
| cM capacity (veh/h) | 538 | 1008 | | | 1506 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 91 | 89 | 197 |
| Volume Left | 41 | 0 | 154 |
| Volume Right | 49 | 63 | 0 |
| cSH | 722 | 1700 | 1506 |
| Volume to Capacity | 0.13 | 0.05 | 0.10 |
| Queue Length 95th (ft) | 11 | 0 | 9 |
| Control Delay (s) | 10.7 | 0.0 | 6.2 |
| Lane LOS | B | | A |
| Approach Delay (s) | 10.7 | 0.0 | 6.2 |
| Approach LOS | B | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.8 | | |
| Intersection Capacity Utilization | 29.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 11 | 8 | 1 | 22 | 11 | 43 | 3 | 33 | 14 | 35 | 45 | 8 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 12 | 8 | 1 | 23 | 12 | 45 | 6 | 35 | 22 | 55 | 47 | 8 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 272 | 232 | 52 | 226 | 225 | 46 | 56 | | | 57 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 272 | 232 | 52 | 226 | 225 | 46 | 56 | | | 57 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 98 | 99 | 100 | 97 | 98 | 96 | 100 | | | 96 | | |
| cM capacity (veh/h) | 623 | 642 | 1016 | 700 | 648 | 1024 | 1549 | | | 1548 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 21 | 80 | 63 | 111 |
| Volume Left | 12 | 23 | 6 | 55 |
| Volume Right | 1 | 45 | 22 | 8 |
| cSH | 643 | 840 | 1549 | 1548 |
| Volume to Capacity | 0.03 | 0.10 | 0.00 | 0.04 |
| Queue Length 95th (ft) | 3 | 8 | 0 | 3 |
| Control Delay (s) | 10.8 | 9.7 | 0.8 | 3.8 |
| Lane LOS | B | A | A | A |
| Approach Delay (s) | 10.8 | 9.7 | 0.8 | 3.8 |
| Approach LOS | B | A | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 5.4 | | | |
| Intersection Capacity Utilization | 23.8% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 78 | 143 | 11 | 53 | 83 | 18 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 82 | 151 | 17 | 56 | 87 | 19 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 233 | | 248 | 157 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 233 | | 248 | 157 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 88 | 98 |
| cM capacity (veh/h) | | | 1335 | | 731 | 888 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 233 | 73 | 106 |
| Volume Left | 0 | 17 | 87 |
| Volume Right | 151 | 0 | 19 |
| cSH | 1700 | 1335 | 755 |
| Volume to Capacity | 0.14 | 0.01 | 0.14 |
| Queue Length 95th (ft) | 0 | 1 | 12 |
| Control Delay (s) | 0.0 | 1.9 | 10.6 |
| Lane LOS | | A | B |
| Approach Delay (s) | 0.0 | 1.9 | 10.6 |
| Approach LOS | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.1 | | |
| Intersection Capacity Utilization | 30.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 14 | 17 | 40 | 10 | 13 | 32 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 15 | 18 | 42 | 11 | 21 | 34 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 122 | 47 | | | 53 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 122 | 47 | | | 53 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 98 | 98 | | | 99 | |
| cM capacity (veh/h) | 862 | 1022 | | | 1553 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 33 | 53 | 54 |
| Volume Left | 15 | 0 | 21 |
| Volume Right | 18 | 11 | 0 |
| cSH | 943 | 1700 | 1553 |
| Volume to Capacity | 0.03 | 0.03 | 0.01 |
| Queue Length 95th (ft) | 3 | 0 | 1 |
| Control Delay (s) | 9.0 | 0.0 | 2.8 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.0 | 0.0 | 2.8 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.2 | | |
| Intersection Capacity Utilization | 19.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

## APPENDIX L

## EXISTING + PROJECT + CUMULATIVE TWO-LANE HIGHWAY (HCM) CALCUALTIONS

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing+Project+Cumulative |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 196 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 381 | pc/h |
| Highest directional split proportion (note-2) | 255 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.4 | mi/h |
| Average travel speed, ATS | 47.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 322 | pc/h |
| Highest directional split proportion (note-2) | 216 | |
| Base percent time-spent-following, BPTSF | 24.7 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 23.7 | |
| Percent time-spent-following, PTSF | 48.4 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.12 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 657 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2313 | veh-mi |
| Peak 15-min total travel time, TT15 | 13.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing+Project+Cumulative |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 202 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 392 | pc/h |
| Highest directional split proportion (note-2) | 263 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.5 | mi/h |
| Average travel speed, ATS | 47.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 331 | pc/h |
| Highest directional split proportion (note-2) | 222 | |
| Base percent time-spent-following, BPTSF | 25.2 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 23.6 | |
| Percent time-spent-following, PTSF | 48.9 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.12 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 677 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2384 | veh-mi |
| Peak 15-min total travel time, TT15 | 14.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 149 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 186 | pc/h |
| Highest directional split proportion (note-2) | 125 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.8 | mi/h |
| Average travel speed, ATS | 51.6 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 172 | pc/h |
| Highest directional split proportion (note-2) | 115 | |
| Base percent time-spent-following, BPTSF | 14.0 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.6 | |
| Percent time-spent-following, PTSF | 35.6 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 59 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 209 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 183 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 228 | pc/h |
| Highest directional split proportion (note-2) | 153 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.1 | mi/h |
| Average travel speed, ATS | 51.0 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 211 | pc/h |
| Highest directional split proportion (note-2) | 141 | |
| Base percent time-spent-following, BPTSF | 16.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.2 | |
| Percent time-spent-following, PTSF | 38.1 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 73 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 256 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.4 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 358 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 447 | pc/h |
| Highest directional split proportion (note-2) | 255 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.0 | mi/h |
| Average travel speed, ATS | 48.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 413 | pc/h |
| Highest directional split proportion (note-2) | 235 | |
| Base percent time-spent-following, BPTSF | 30.4 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.0 | |
| Percent time-spent-following, PTSF | 49.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.14 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 81 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 286 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.7 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 354 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 442 | pc/h |
| Highest directional split proportion (note-2) | 252 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.0 | mi/h |
| Average travel speed, ATS | 48.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 408 | pc/h |
| Highest directional split proportion (note-2) | 233 | |
| Base percent time-spent-following, BPTSF | 30.1 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.1 | |
| Percent time-spent-following, PTSF | 49.2 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.14 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 80 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 283 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.7 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 195 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 243 | pc/h |
| Highest directional split proportion (note-2) | 139 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.2 | mi/h |
| Average travel speed, ATS | 50.8 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 225 | pc/h |
| Highest directional split proportion (note-2) | 128 | |
| Base percent time-spent-following, BPTSF | 17.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 37.4 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.08 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 626 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2204 | veh-mi |
| Peak 15-min total travel time, TT15 | 12.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 9/12/06 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | Existing + Project + Cumulativ |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 165 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 206 | pc/h |
| Highest directional split proportion (note-2) | 117 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 51.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 190 | pc/h |
| Highest directional split proportion (note-2) | 108 | |
| Base percent time-spent-following, BPTSF | 15.4 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 34.9 | % |

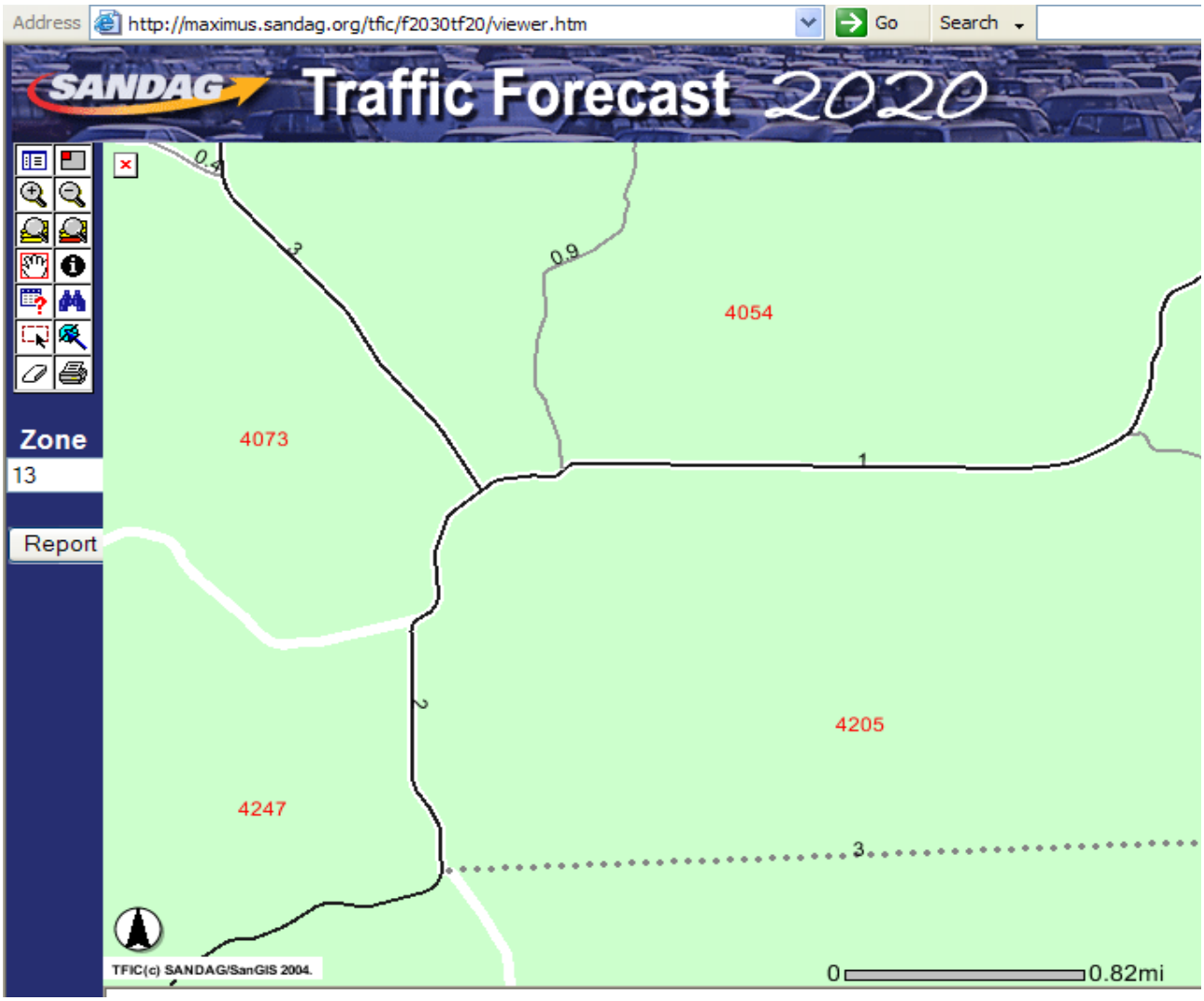
## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 530 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1865 | veh-mi |
| Peak 15-min total travel time, TT15 | 10.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

## APPENDIX M

## YEAR 2020 SANDAG ADTS, GROWTH FACTORS, AND FORECASTED ADTS


Address
http://maximus.sandag.org/tfic/f2030tf20/viewer.htm
Go
Search
SANDAG
Traffic Forecast 2020
Zone
13
Report
4054
4073
4205
4247
0.4
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1
2
3
TFIC(c) SANDAG/SanGIS 2004.
0
0.82mi

## ADT GROWTH CALCULATIONS

SR-94 south of Buchman Springs Road

| Year | Delta in Years | ADT | | Change in ADT | % change for year shown | Average Growth Factor Per Year |
|---|---|---|---|---|---|---|
| 1993 | | 1,500 | | | | |
| 1995 | 2 | 2,200 | | 700 | 15.9% | |
| 1997 | 2 | 1,800 | | -400 | -11.1% | |
| 1998 | 1 | 1,750 | Caltrans | -50 | -2.9% | |
| 1999 | 1 | 1,750 | Historical | 0 | 0.0% | |
| 2000 | 1 | 1,800 | Data | 50 | 2.8% | |
| 2001 | 1 | 2,000 | | 200 | 10.0% | |
| 2002 | 1 | 2,000 | | 0 | 0.0% | |
| 2003 | 4 | 2,150 | | 150 | 1.7% | **3.33%** |

SR-94 east of Buchman Springs Road

| Year | Delta in Years | ADT | | Change in ADT | % change for year shown | Average Growth Factor Per Year |
|---|---|---|---|---|---|---|
| 1993 | | 1,600 | | | | |
| 1995 | 2 | 1,850 | | 250 | 6.8% | |
| 1997 | 2 | 1,550 | | -300 | -9.7% | |
| 1998 | 1 | 1,500 | Caltrans | -50 | -3.3% | |
| 1999 | 1 | 1,500 | Historical | 0 | 0.0% | |
| 2000 | 1 | 1,650 | Data | 150 | 9.1% | |
| 2001 | 1 | 1,800 | | 150 | 8.3% | |
| 2002 | 1 | 1,750 | | -50 | -2.9% | |
| 2003 | 4 | 1,750 | | 0 | 0.0% | **0.72%** |

For Buckman Springs Road and Sheridan Road, the average of the above growth factors was used, which equals 2.03%

| Street Segment | SR-94 | SR-94 | SR-94 | SR-94 | Buckman Spr | Sheridan Rd |
|---|---|---|---|---|---|---|
| From | Tecate Rd | Forest Gate | Buckman Spr | Sheridan Rd | I-8 | SR-94 |
| To | Forest Gate | Buckman Spr | Sheridan Rd | White Star | SR-94 | Jeb Stuart Rd |
| Existing+Cumulative ADT | 2,610 | 2,085 | 4,164 | 2,330 | 4,922 | 818 |
| Growth Factor (1) | 3.33% | 3.33% | 0.72% | 0.72% | 2.03% | 2.03% |
| 2020 (based on E+C) | **4,088** | **3,265** | **4,674** | **2,615** | **6,621** | **1,100** |

(1) For Buckman Springs Road and Sheridan Road, the average growth factors was used, which equals 2.03% while the growth factors for SR-94 were based on the actual growth factor calculated on the previous page.

| | | | | | | | | | | | | | | | ***BUILD-OUT*** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | DATE | TIME | INTID | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR | *NBL* | *NBT* | *NBR* | *SBL* | *SBT* | *SBR* | *EBL* | *EBT* | *EBR* | *WBL* | *WBT* | *WBR* |
| **1) SR-94/Forest Gate Road** | | | | | 2610 | | | 2085 | | | 1000 | | | 1000 | | | 4088 | | | 3265 | | | 1100 | | | 1300 | |
| AM E | 4/21/2004 | 700 | 1 | 2 | 41 | 14 | 47 | 33 | 2 | 2 | 0 | 1 | 4 | 1 | 32 | | | | | | | | | | | | |
| AM 2020 | 4/25/2004 | 700 | | 10 | 60 | 30 | 70 | 50 | 10 | 10 | 10 | 10 | 20 | 10 | 40 | 0.001 | 0.016 | 0.005 | 0.023 | 0.016 | 0.001 | 0.002 | 0.000 | 0.001 | 0.004 | 0.001 | 0.032 |
| PM E | 4/21/2004 | 1700 | | 3 | 29 | 1 | 35 | 37 | 8 | 11 | 8 | 1 | 13 | 11 | 43 | | | | | | | | | | | | |
| PM 2020 | 4/25/2004 | 1700 | | 10 | 50 | 10 | 50 | 60 | 10 | 20 | 10 | 10 | 30 | 20 | 60 | 0.001 | 0.011 | 0.000 | 0.017 | 0.018 | 0.004 | 0.011 | 0.008 | 0.001 | 0.013 | 0.011 | 0.043 |
| **2) SR-94/Sheridan Road** | | | | | 818 | | | 0 | | | 4164 | | | 2330 | | | 1100 | | | 0 | | | 4674 | | | 2615 | |
| AM E | 4/21/2004 | 700 | 2 | 10 | 0 | 6 | 0 | 0 | 0 | 0 | 50 | 22 | 16 | 42 | 0 | | | | | | | | | | | | |
| AM 2020 | 4/25/2004 | 700 | | 20 | 10 | 20 | ##### | ##### | ##### | 10 | 60 | 30 | 30 | 60 | 10 | 0.012 | 0.000 | 0.007 | ##### | #DIV/0! | ##### | 0.000 | 0.012 | 0.005 | 0.007 | 0.018 | 0.000 |
| PM E | 4/21/2004 | 1700 | | 21 | 0 | 12 | 0 | 0 | 0 | 0 | 63 | 8 | 9 | 44 | 0 | | | | | | | | | | | | |
| PM 2020 | 4/25/2004 | 1700 | | 40 | 10 | 20 | ##### | ##### | ##### | 10 | 80 | 20 | 20 | 60 | 10 | 0.026 | 0.000 | 0.015 | ##### | #DIV/0! | ##### | 0.000 | 0.015 | 0.002 | 0.004 | 0.019 | 0.000 |
| **3) Sheridan Rd/Project Driveway** | | | | | 818 | | | 818 | | | 0 | | | 764 | | | 1100 | | | 1100 | | | 0 | | | 764 | |
| AM E | 4/21/2004 | 700 | 3 | 0 | 16 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
| AM 2020 | 4/25/2004 | 700 | | 0 | 30 | 0 | 0 | 50 | 0 | ##### | ##### | ##### | 0 | 0 | 0 | 0.000 | 0.020 | 0.000 | 0.000 | 0.024 | 0.000 | ##### | ##### | ##### | 0.000 | 0.000 | 0.000 |
| PM E | 4/21/2004 | 1700 | | 0 | 15 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
| PM 2020 | 4/25/2004 | 1700 | | 0 | 30 | 0 | 0 | 40 | 0 | ##### | ##### | ##### | 0 | 0 | 0 | 0.000 | 0.018 | 0.000 | 0.000 | 0.026 | 0.000 | ##### | ##### | ##### | 0.000 | 0.000 | 0.000 |

## APPENDIX N

## YEAR 2020 WITHOUT AND WITH PROJECT INTERSECTION LEVEL OF SERVICE CALCUALTIONS

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 10 | 10 | 10 | 20 | 10 | 40 | 10 | 60 | 30 | 70 | 50 | 10 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 11 | 11 | 11 | 21 | 11 | 42 | 11 | 63 | 32 | 74 | 53 | 11 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 353 | 321 | 58 | 321 | 311 | 79 | 63 | | | 95 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 353 | 321 | 58 | 321 | 311 | 79 | 63 | | | 95 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 98 | 98 | 99 | 96 | 98 | 96 | 99 | | | 95 | | |
| cM capacity (veh/h) | 544 | 563 | 1008 | 590 | 571 | 982 | 1539 | | | 1499 | | |

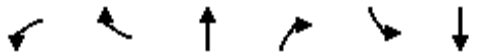
| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 32 | 74 | 105 | 137 |
| Volume Left | 11 | 21 | 11 | 74 |
| Volume Right | 11 | 42 | 32 | 11 |
| cSH | 651 | 759 | 1539 | 1499 |
| Volume to Capacity | 0.05 | 0.10 | 0.01 | 0.05 |
| Queue Length 95th (ft) | 4 | 8 | 1 | 4 |
| Control Delay (s) | 10.8 | 10.2 | 0.8 | 4.2 |
| Lane LOS | B | B | A | A |
| Approach Delay (s) | 10.8 | 10.2 | 0.8 | 4.2 |
| Approach LOS | B | B | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 5.1 | | |
| Intersection Capacity Utilization | 25.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 60 | 30 | 30 | 60 | 20 | 20 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 63 | 32 | 32 | 63 | 21 | 21 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 95 | | 205 | 79 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 95 | | 205 | 79 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 97 | 98 |
| cM capacity (veh/h) | | | 1499 | | 767 | 982 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 95 | 95 | 42 |
| Volume Left | 0 | 32 | 21 |
| Volume Right | 32 | 0 | 21 |
| cSH | 1700 | 1499 | 861 |
| Volume to Capacity | 0.06 | 0.02 | 0.05 |
| Queue Length 95th (ft) | 0 | 2 | 4 |
| Control Delay (s) | 0.0 | 2.6 | 9.4 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 2.6 | 9.4 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.8 | | |
| Intersection Capacity Utilization | 21.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 1 | 1 | 30 | 1 | 2 | 50 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 1 | 1 | 32 | 1 | 2 | 53 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 89 | 32 | | | 33 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 89 | 32 | | | 33 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 100 | 100 | | | 100 | |
| cM capacity (veh/h) | 910 | 1042 | | | 1579 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 2 | 33 | 55 |
| Volume Left | 1 | 0 | 2 |
| Volume Right | 1 | 1 | 0 |
| cSH | 972 | 1700 | 1579 |
| Volume to Capacity | 0.00 | 0.02 | 0.00 |
| Queue Length 95th (ft) | 0 | 0 | 0 |
| Control Delay (s) | 8.7 | 0.0 | 0.3 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.7 | 0.0 | 0.3 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.4 | | |
| Intersection Capacity Utilization | 14.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 20 | 10 | 10 | 30 | 20 | 60 | 10 | 50 | 10 | 50 | 60 | 10 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 21 | 11 | 11 | 32 | 21 | 63 | 11 | 53 | 11 | 53 | 63 | 11 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 326 | 258 | 68 | 268 | 258 | 58 | 74 | | | 63 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 326 | 258 | 68 | 268 | 258 | 58 | 74 | | | 63 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 96 | 98 | 99 | 95 | 97 | 94 | 99 | | | 97 | | |
| cM capacity (veh/h) | 555 | 620 | 995 | 647 | 620 | 1008 | 1526 | | | 1539 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 42 | 116 | 74 | 126 |
| Volume Left | 21 | 32 | 11 | 53 |
| Volume Right | 11 | 63 | 11 | 11 |
| cSH | 643 | 796 | 1526 | 1539 |
| Volume to Capacity | 0.07 | 0.15 | 0.01 | 0.03 |
| Queue Length 95th (ft) | 5 | 13 | 1 | 3 |
| Control Delay (s) | 11.0 | 10.3 | 1.1 | 3.2 |
| Lane LOS | B | B | A | A |
| Approach Delay (s) | 11.0 | 10.3 | 1.1 | 3.2 |
| Approach LOS | B | B | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 6.0 | | |
| Intersection Capacity Utilization | 26.8% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 80 | 20 | 20 | 60 | 40 | 20 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 84 | 21 | 21 | 63 | 42 | 21 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 105 | | 200 | 95 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 105 | | 200 | 95 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 99 | | 95 | 98 |
| cM capacity (veh/h) | | | 1486 | | 777 | 962 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 105 | 84 | 63 |
| Volume Left | 0 | 21 | 42 |
| Volume Right | 21 | 0 | 21 |
| cSH | 1700 | 1486 | 831 |
| Volume to Capacity | 0.06 | 0.01 | 0.08 |
| Queue Length 95th (ft) | 0 | 1 | 6 |
| Control Delay (s) | 0.0 | 1.9 | 9.7 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 1.9 | 9.7 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | | 3.1 | |
| Intersection Capacity Utilization | | 21.4% | ICU Level of Service A |
| Analysis Period (min) | | 15 | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 2 | 2 | 30 | 2 | 2 | 40 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 2 | 2 | 32 | 2 | 2 | 42 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 79 | 33 | | | 34 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 79 | 33 | | | 34 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 100 | 100 | | | 100 | |
| cM capacity (veh/h) | 922 | 1041 | | | 1578 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 4 | 34 | 44 |
| Volume Left | 2 | 0 | 2 |
| Volume Right | 2 | 2 | 0 |
| cSH | 978 | 1700 | 1578 |
| Volume to Capacity | 0.00 | 0.02 | 0.00 |
| Queue Length 95th (ft) | 0 | 0 | 0 |
| Control Delay (s) | 8.7 | 0.0 | 0.4 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.7 | 0.0 | 0.4 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.6 | | |
| Intersection Capacity Utilization | 13.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 10 | 10 | 10 | 37 | 10 | 40 | 10 | 60 | 57 | 70 | 50 | 10 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 11 | 11 | 11 | 39 | 11 | 42 | 11 | 63 | 60 | 74 | 53 | 11 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 367 | 349 | 58 | 335 | 325 | 93 | 63 | | | 123 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 367 | 349 | 58 | 335 | 325 | 93 | 63 | | | 123 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 98 | 98 | 99 | 93 | 98 | 96 | 99 | | | 95 | | |
| cM capacity (veh/h) | 532 | 542 | 1008 | 577 | 559 | 964 | 1539 | | | 1464 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 32 | 92 | 134 | 137 |
| Volume Left | 11 | 39 | 11 | 74 |
| Volume Right | 11 | 42 | 60 | 11 |
| cSH | 636 | 704 | 1539 | 1464 |
| Volume to Capacity | 0.05 | 0.13 | 0.01 | 0.05 |
| Queue Length 95th (ft) | 4 | 11 | 1 | 4 |
| Control Delay (s) | 11.0 | 10.9 | 0.6 | 4.3 |
| Lane LOS | B | B | A | A |
| Approach Delay (s) | 11.0 | 10.9 | 0.6 | 4.3 |
| Approach LOS | B | B | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 5.1 | | | |
| Intersection Capacity Utilization | 27.7% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 60 | 57 | 43 | 60 | 37 | 29 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 63 | 60 | 45 | 63 | 39 | 31 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 123 | | 247 | 93 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 123 | | 247 | 93 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 97 | | 95 | 97 |
| cM capacity (veh/h) | | | 1464 | | 719 | 964 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 123 | 108 | 69 |
| Volume Left | 0 | 45 | 39 |
| Volume Right | 60 | 0 | 31 |
| cSH | 1700 | 1464 | 809 |
| Volume to Capacity | 0.07 | 0.03 | 0.09 |
| Queue Length 95th (ft) | 0 | 2 | 7 |
| Control Delay (s) | 0.0 | 3.3 | 9.9 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 3.3 | 9.9 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.5 | | |
| Intersection Capacity Utilization | 23.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 39 | 47 | 30 | 60 | 73 | 50 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 41 | 49 | 32 | 63 | 77 | 53 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 269 | 63 | | | 95 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 269 | 63 | | | 95 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 94 | 95 | | | 95 | |
| cM capacity (veh/h) | 683 | 1001 | | | 1499 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 91 | 95 | 129 |
| Volume Left | 41 | 0 | 77 |
| Volume Right | 49 | 63 | 0 |
| cSH | 827 | 1700 | 1499 |
| Volume to Capacity | 0.11 | 0.06 | 0.05 |
| Queue Length 95th (ft) | 9 | 0 | 4 |
| Control Delay (s) | 9.9 | 0.0 | 4.6 |
| Lane LOS | A | | A |
| Approach Delay (s) | 9.9 | 0.0 | 4.6 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 4.7 | | |
| Intersection Capacity Utilization | 25.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Free | | | Free | |
| Grade | | 0% | | | 0% | | | 0% | | | 0% | |
| Volume (veh/h) | 20 | 10 | 10 | 36 | 20 | 60 | 10 | 50 | 15 | 50 | 60 | 10 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 21 | 11 | 11 | 38 | 21 | 63 | 11 | 53 | 16 | 53 | 63 | 11 |
| Pedestrians | | | | | | | | | | | | |
| Lane Width (ft) | | | | | | | | | | | | |
| Walking Speed (ft/s) | | | | | | | | | | | | |
| Percent Blockage | | | | | | | | | | | | |
| Right turn flare (veh) | | | | | | | | | | | | |
| Median type | | None | | | None | | | | | | | |
| Median storage veh) | | | | | | | | | | | | |
| Upstream signal (ft) | | | | | | | | | | | | |
| pX, platoon unblocked | | | | | | | | | | | | |
| vC, conflicting volume | 329 | 263 | 68 | 271 | 261 | 61 | 74 | | | 68 | | |
| vC1, stage 1 conf vol | | | | | | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | | | | | | |
| vCu, unblocked vol | 329 | 263 | 68 | 271 | 261 | 61 | 74 | | | 68 | | |
| tC, single (s) | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | | | 4.1 | | |
| tC, 2 stage (s) | | | | | | | | | | | | |
| tF (s) | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 | 2.2 | | | 2.2 | | |
| p0 queue free % | 96 | 98 | 99 | 94 | 97 | 94 | 99 | | | 97 | | |
| cM capacity (veh/h) | 552 | 616 | 995 | 645 | 618 | 1005 | 1526 | | | 1533 | | |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total | 42 | 122 | 79 | 126 |
| Volume Left | 21 | 38 | 11 | 53 |
| Volume Right | 11 | 63 | 16 | 11 |
| cSH | 640 | 784 | 1526 | 1533 |
| Volume to Capacity | 0.07 | 0.16 | 0.01 | 0.03 |
| Queue Length 95th (ft) | 5 | 14 | 1 | 3 |
| Control Delay (s) | 11.0 | 10.4 | 1.0 | 3.3 |
| Lane LOS | B | B | A | A |
| Approach Delay (s) | 11.0 | 10.4 | 1.0 | 3.3 |
| Approach LOS | B | B | | |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Average Delay | 6.0 | | | |
| Intersection Capacity Utilization | 27.3% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Free | | | Free | Stop | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 80 | 25 | 22 | 60 | 46 | 23 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 84 | 26 | 23 | 63 | 48 | 24 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | | | 111 | | 207 | 97 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | | | 111 | | 207 | 97 |
| tC, single (s) | | | 4.1 | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | | | 2.2 | | 3.5 | 3.3 |
| p0 queue free % | | | 98 | | 94 | 97 |
| cM capacity (veh/h) | | | 1479 | | 769 | 959 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 |
|---|---|---|---|
| Volume Total | 111 | 86 | 73 |
| Volume Left | 0 | 23 | 48 |
| Volume Right | 26 | 0 | 24 |
| cSH | 1700 | 1479 | 824 |
| Volume to Capacity | 0.07 | 0.02 | 0.09 |
| Queue Length 95th (ft) | 0 | 1 | 7 |
| Control Delay (s) | 0.0 | 2.1 | 9.8 |
| Lane LOS | | A | A |
| Approach Delay (s) | 0.0 | 2.1 | 9.8 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.3 | | |
| Intersection Capacity Utilization | 22.1% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | Free | | | Free |
| Grade | 0% | | 0% | | | 0% |
| Volume (veh/h) | 14 | 17 | 30 | 10 | 13 | 40 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Hourly flow rate (vph) | 15 | 18 | 32 | 11 | 14 | 42 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 106 | 37 | | | 42 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 106 | 37 | | | 42 | |
| tC, single (s) | 6.4 | 6.2 | | | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 3.3 | | | 2.2 | |
| p0 queue free % | 98 | 98 | | | 99 | |
| cM capacity (veh/h) | 884 | 1035 | | | 1567 | |

| Direction, Lane # | WB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 33 | 42 | 56 |
| Volume Left | 15 | 0 | 14 |
| Volume Right | 18 | 11 | 0 |
| cSH | 961 | 1700 | 1567 |
| Volume to Capacity | 0.03 | 0.02 | 0.01 |
| Queue Length 95th (ft) | 3 | 0 | 1 |
| Control Delay (s) | 8.9 | 0.0 | 1.8 |
| Lane LOS | A | | A |
| Approach Delay (s) | 8.9 | 0.0 | 1.8 |
| Approach LOS | A | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 3.0 | | |
| Intersection Capacity Utilization | 19.5% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

## APPENDIX 0

## YEAR 2020 WITHOUT AND WITH PROJECT TWO-LANE HIGHWAY (HCM) CALCUALTIONS

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 226 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 439 | pc/h |
| Highest directional split proportion (note-2) | 294 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.4 | mi/h |
| Average travel speed, ATS | 47.0 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 371 | pc/h |
| Highest directional split proportion (note-2) | 249 | |
| Base percent time-spent-following, BPTSF | 27.8 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 23.2 | |
| Percent time-spent-following, PTSF | 51.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.14 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 758 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2667 | veh-mi |
| Peak 15-min total travel time, TT15 | 16.1 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 280 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 544 | pc/h |
| Highest directional split proportion (note-2) | 364 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.1 | mi/h |
| Average travel speed, ATS | 46.5 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 460 | pc/h |
| Highest directional split proportion (note-2) | 308 | |
| Base percent time-spent-following, BPTSF | 33.3 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 22.3 | |
| Percent time-spent-following, PTSF | 55.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.17 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 939 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 3304 | veh-mi |
| Peak 15-min total travel time, TT15 | 20.2 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 181 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 226 | pc/h |
| Highest directional split proportion (note-2) | 151 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.1 | mi/h |
| Average travel speed, ATS | 51.0 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 209 | pc/h |
| Highest directional split proportion (note-2) | 140 | |
| Base percent time-spent-following, BPTSF | 16.8 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.2 | |
| Percent time-spent-following, PTSF | 38.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 72 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 253 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.4 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 223 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 278 | pc/h |
| Highest directional split proportion (note-2) | 186 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.4 | mi/h |
| Average travel speed, ATS | 50.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 257 | pc/h |
| Highest directional split proportion (note-2) | 172 | |
| Base percent time-spent-following, BPTSF | 20.2 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 20.7 | |
| Percent time-spent-following, PTSF | 41.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.09 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 89 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 312 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 335 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 418 | pc/h |
| Highest directional split proportion (note-2) | 238 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.1 | mi/h |
| Average travel speed, ATS | 48.5 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 386 | pc/h |
| Highest directional split proportion (note-2) | 220 | |
| Base percent time-spent-following, BPTSF | 28.8 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.2 | |
| Percent time-spent-following, PTSF | 48.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.13 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 76 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 268 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.6 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 363 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 453 | pc/h |
| Highest directional split proportion (note-2) | 258 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.0 | mi/h |
| Average travel speed, ATS | 48.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 418 | pc/h |
| Highest directional split proportion (note-2) | 238 | |
| Base percent time-spent-following, BPTSF | 30.7 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.0 | |
| Percent time-spent-following, PTSF | 49.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.14 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 83 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 290 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.7 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 175 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 218 | pc/h |
| Highest directional split proportion (note-2) | 124 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.0 | mi/h |
| Average travel speed, ATS | 51.1 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 202 | pc/h |
| Highest directional split proportion (note-2) | 115 | |
| Base percent time-spent-following, BPTSF | 16.3 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 35.8 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 562 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1978 | veh-mi |
| Peak 15-min total travel time, TT15 | 11.0 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 160 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 200 | pc/h |
| Highest directional split proportion (note-2) | 114 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 51.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 184 | pc/h |
| Highest directional split proportion (note-2) | 105 | |
| Base percent time-spent-following, BPTSF | 14.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 34.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 514 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1808 | veh-mi |
| Peak 15-min total travel time, TT15 | 10.0 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | | |
|---|---|---|---|---|
| Two-way hourly volume, V | 270 | | veh/h | |
| Directional split | 67 | / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 525 | pc/h |
| Highest directional split proportion (note-2) | 352 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.1 | mi/h |
| Average travel speed, ATS | 46.6 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 443 | pc/h |
| Highest directional split proportion (note-2) | 297 | |
| Base percent time-spent-following, BPTSF | 32.3 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 22.5 | |
| Percent time-spent-following, PTSF | 54.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.16 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 905 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 3186 | veh-mi |
| Peak 15-min total travel time, TT15 | 19.4 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Tecate Rd to Forest Gate Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Rolling | | % No-passing zones | 100 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 291 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.71 | |
| PCE for trucks, ET | 2.5 | |
| PCE for RVs, ER | 1.1 | |
| Heavy-vehicle adjustment factor, | 0.824 | |
| Two-way flow rate,(note-1) vp | 565 | pc/h |
| Highest directional split proportion (note-2) | 379 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 4.0 | mi/h |
| Average travel speed, ATS | 46.4 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 0.77 | |
| PCE for trucks, ET | 1.8 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.899 | |
| Two-way flow rate,(note-1) vp | 478 | pc/h |
| Highest directional split proportion (note-2) | 320 | |
| Base percent time-spent-following, BPTSF | 34.3 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 22.1 | |
| Percent time-spent-following, PTSF | 56.4 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.18 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 976 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 3434 | veh-mi |
| Peak 15-min total travel time, TT15 | 21.0 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 181 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 226 | pc/h |
| Highest directional split proportion (note-2) | 151 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.1 | mi/h |
| Average travel speed, ATS | 51.0 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 209 | pc/h |
| Highest directional split proportion (note-2) | 140 | |
| Base percent time-spent-following, BPTSF | 16.8 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 21.2 | |
| Percent time-spent-following, PTSF | 38.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.07 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 72 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 253 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.4 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Forest Gate Rd to Buckman Spr |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 1.4 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 223 | veh/h | |
| Directional split | 67 / 33 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 278 | pc/h |
| Highest directional split proportion (note-2) | 186 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.4 | mi/h |
| Average travel speed, ATS | 50.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 257 | pc/h |
| Highest directional split proportion (note-2) | 172 | |
| Base percent time-spent-following, BPTSF | 20.2 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 20.7 | |
| Percent time-spent-following, PTSF | 41.0 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.09 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 89 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 312 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 379 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 473 | pc/h |
| Highest directional split proportion (note-2) | 270 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.0 | mi/h |
| Average travel speed, ATS | 48.2 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 437 | pc/h |
| Highest directional split proportion (note-2) | 249 | |
| Base percent time-spent-following, BPTSF | 31.9 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 18.8 | |
| Percent time-spent-following, PTSF | 50.7 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.15 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 86 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 303 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Buckman Springs to Sheridan Rd |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 0.8 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 374 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 467 | pc/h |
| Highest directional split proportion (note-2) | 266 | pc/h |
| **Free-Flow Speed from Field Measurement:** | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| **Estimated Free-Flow Speed:** | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 3.0 | mi/h |
| Average travel speed, ATS | 48.2 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 431 | pc/h |
| Highest directional split proportion (note-2) | 246 | |
| Base percent time-spent-following, BPTSF | 31.5 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 18.9 | |
| Percent time-spent-following, PTSF | 50.4 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | C | |
| Volume to capacity ratio, v/c | 0.15 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 85 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 299 | veh-mi |
| Peak 15-min total travel time, TT15 | 1.8 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | AM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 197 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 246 | pc/h |
| Highest directional split proportion (note-2) | 140 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 2.2 | mi/h |
| Average travel speed, ATS | 50.7 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 227 | pc/h |
| Highest directional split proportion (note-2) | 129 | |
| Base percent time-spent-following, BPTSF | 18.1 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 37.5 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.08 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 632 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 2226 | veh-mi |
| Peak 15-min total travel time, TT15 | 12.5 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

Phone: Fax:
E-Mail:

## Two-Way Two-Lane Highway Segment Analysis

| | |
|---|---|
| Analyst | JR |
| Agency/Co. | County |
| Date Performed | 4/5/2005 |
| Analysis Time Period | PM |
| Highway | SR-94 |
| From/To | Sheridan Rd to White Star |
| Jurisdiction | Caltrans |
| Analysis Year | 2020 + Project |
| Description | St. Adelaide |

## Input Data

| | | | | | |
|---|---|---|---|---|---|
| Highway class | Class 1 | | | | |
| Shoulder width | 1.0 | ft | Peak-hour factor, PHF | 0.88 | |
| Lane width | 12.0 | ft | % Trucks and buses | 14 | % |
| Segment length | 11.3 | mi | % Recreational vehicles | 4 | % |
| Terrain type | Level | | % No-passing zones | 50 | % |
| Grade: Length | | mi | Access points/mi | 4 | /mi |
| Up/down | | % | | | |

| | | | |
|---|---|---|---|
| Two-way hourly volume, V | 165 | veh/h | |
| Directional split | 57 / 43 | % | |

## Average Travel Speed

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.7 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, | 0.911 | |
| Two-way flow rate,(note-1) vp | 206 | pc/h |
| Highest directional split proportion (note-2) | 117 | pc/h |
| Free-Flow Speed from Field Measurement: | | |
| Field measured speed, SFM | - | mi/h |
| Observed volume, Vf | - | veh/h |
| Estimated Free-Flow Speed: | | |
| Base free-flow speed, BFFS | 60.0 | mi/h |
| Adj. for lane and shoulder width, fLS | 4.2 | mi/h |
| Adj. for access points, fA | 1.0 | mi/h |
| Free-flow speed, FFS | 54.8 | mi/h |
| Adjustment for no-passing zones, fnp | 1.9 | mi/h |
| Average travel speed, ATS | 51.3 | mi/h |

## Percent Time-Spent-Following

| | | |
|---|---|---|
| Grade adjustment factor, fG | 1.00 | |
| PCE for trucks, ET | 1.1 | |
| PCE for RVs, ER | 1.0 | |
| Heavy-vehicle adjustment factor, fHV | 0.986 | |
| Two-way flow rate,(note-1) vp | 190 | pc/h |
| Highest directional split proportion (note-2) | 108 | |
| Base percent time-spent-following, BPTSF | 15.4 | % |
| Adj.for directional distribution and no-passing zones, fd/np | 19.5 | |
| Percent time-spent-following, PTSF | 34.9 | % |

## Level of Service and Other Performance Measures

| | | |
|---|---|---|
| Level of service, LOS | B | |
| Volume to capacity ratio, v/c | 0.06 | |
| Peak 15-min vehicle-miles of travel, VMT15 | 530 | veh-mi |
| Peak-hour vehicle-miles of travel, VMT60 | 1865 | veh-mi |
| Peak 15-min total travel time, TT15 | 10.3 | veh-h |

Notes:
1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.

## APPENDIX P

## PROJECT APPLICANT TIF AGREEMENT LETTER

Construction Services

May 5, 2006

Mr. Gary Pryor, Director
County of San Diego
Department of Planning and Land Use
5201 Ruffin Road, Suite B
San Diego, CA 92123

Dear Mr. Pryor

The applicant and owner for the Saint Adelaide Catholic Church in Campo (MUP 04-056) agrees to participate in the San Diego County TIF (traffic impact fee) program to mitigate all potential cumulative traffic impacts associated with this project. We understand that the TIF fees for the church buildings are based upon the square footage of the church building and the TIF fee for K-8 schools is at a rate per student. These fees are payable at the time building permits are issued and are phased with the project.

TIF fees will be based upon the TIF fee schedule in effect at the time the building permits are issued. The current rates for church construction are $1,834.00 per one-thousand (1000) square feet and the rate for K-8 schools is $330.00 per student.

The applicant understands that these fees are subject to change as the TIF is updated annually and the fees are adjusted to reflect the engineering cost index.

Sincerely,

Wm. Joel King, AIA
Director of Construction Services



PASTORAL CENTER ✣ P.O. Box 85728 ✣ San Diego, California 92186-5728 ✣ Telephone: (858) 490-8215 ✣ Fax: (858) 490-8272